

**CHILDREN'S EXPERIENCES OF LEARNING MINDFULNESS
TO HELP DEVELOP THEIR ATTENTIONAL SKILLS**

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**A thesis submitted in partial fulfilment of the
requirements of the University of East London
for the degree of
Professional Doctorate in
Applied Educational and Child Psychology**

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Declaration

University of East London
School of Psychology
Doctorate in Applied Educational and Child Psychology

Declaration

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Abstract

Introduction

This research explored children's experiences of learning mindfulness to help develop their attentional skills. Mindfulness is a quality of awareness that may be developed by purposefully cultivating an open, curious attitude of acceptance with which to attend to events in the present moment (Bishop et al., 2004; Kabat-Zinn, 2003). Certain practices may help cultivate this state.

Literature Review

Practicing mindfulness has been shown to improve attention and well-being and decrease depression. Mindfulness practices may also help adolescents with attentional difficulties (van der Oord, Bogels, & Peijnenburg, 2012; Zylowska et al., 2008). Literature on children's experiences of mindfulness and mindfulness in schools and for children with attentional difficulties was sparse. These gaps in the literature inspired the main research question: What are children's experiences of mindfulness?

Methodology

The research adopted a critical realist position at the methodological level, creating a narrative on the participants' experiences, and a transformative approach at the sociological level, empowering the participants with skills for developing their attention. A small-group Mindfulness-based Attention Training (MBAT) intervention was designed and implemented in a mainstream primary school. Six children (Year 5, aged 9), identified as having mild attentional difficulties, participated in this intervention, during which they learnt mindfulness practices and drew or wrote about their experiences. Before and after the intervention, they were interviewed, during which the Child Acceptance and Mindfulness Measure (CAMP) was completed to explore potential changes in trait mindfulness. During the final interview, the children spoke about their experiences of mindfulness, using their pictures as prompts.

Children's experiences from the CAMM

The CAMM provided background information to the participants and their attentional difficulties. No significant difference was found between the children's scores of levels of mindfulness before and after the intervention.

Children's experiences through IPA

The research also developed an understanding of the participants' experiences of the state of mindfulness. This data was analysed using Interpretative Phenomenological Analysis (IPA). Their experiences included feeling calm, relaxed and happy and becoming aware of detailed physical sensations and sounds. In addition during the mindfulness practices they recalled past events, mostly happy ones, and imaginary ones with positive associations. Later in the intervention, their experiences indicated emerging detachment from thought processes and included metaphors for awareness of the attentional processes and personalised strategies for developing skills in sustaining their attention on present moment events with kindness.

Discussion

The research had produced a comprehensive analysis of the children's experiences of state mindfulness. Its use of drawings had helped the children to recall and express their experiences. Overall, there had been some qualitative, but not quantitative changes in levels of trait mindfulness. The participants' had applied the practices, including being better able to concentrate, sit still and focus on the teacher. They also preferred the body-scan, using metaphors and support to develop a personal practice. The discussion included speculation on how mindfulness may address attentional difficulties, such as distractibility, rumination and automaticity. It also evaluated the methodology and considered implications for using mindfulness in school settings and educational psychology practice.

Conclusion

The research made a unique contribution to understanding children's experiences of states of being including those reflecting emergent mindfulness and their views on applying and learning mindfulness practices.

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And students for their feedback and our shared enjoyment.

May this work be dedicated to all beings.

May they experience well-being, happiness and peace.

Glossary of terms

This glossary explains key concepts used in the mindfulness research field.

Anchor	To help focus the attention upon events in the present moment, it is useful to have a tangible focal point, or an ‘anchor’ (Kabat-Zinn, 1994). This can be the breath.
Attention deficit hyperactivity disorder (ADHD)	Attention Deficit Hyperactivity Disorder (ADHD) is a syndrome in which the individual’s behaviour is characteristic by persistent symptoms of inattention, hyperactivity and impulsivity (<i>Diagnostic and Statistical Manual of Mental Diseases (DSM-IV)</i> , 1994; NICE, 2008).
Body Scan	The body scan is a ‘formal’ mindfulness practice in which the body is systematically scanned with the attention. Mindful awareness is brought to different regions of the body (Kabat-Zinn, 2005; Segal, Williams, & Teasdale, 2002).
Child Acceptance and Mindfulness Measure (CAMM)	The CAMM is a measure of mindfulness for school-age children and adolescents. It includes assessing the degree to which respondents notice or attend to internal phenomena (thoughts, feelings and body sensations) and are able to acceptance these experiences without judgement. The original measure, used in this study, had 25 items and was redeveloped into a 10 item measure, through a validation process (Greco & Baer, 2006; Greco, Baer, & Smith, 2011).
Hatha Yoga	Hatha yoga is a ‘formal’ mindfulness practice in which mindful awareness is focused on the body as it is moved, stretch or kept still in certain physical postures (yoga poses) (Baer & Krietemeyer, 2006; Kabat-Zinn, 2005).

Mindful movement	Mindful movement is a general term for practices that involve bringing awareness to the detailed experience of movement, such as when walking or doing tai chi or yoga (Baer & Krietemeyer, 2006; Kabat-Zinn, 2005).
Mindfulness	“Mindfulness is the awareness that emerges through paying attention on purpose, in the present moment, and non-judgementally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p.145). It may be conceptualised along the dimensions of intention, bare attention, attentional control, wholesome emotions and ethical discernment (Dorjee, 2010). A sense of purpose (intention) is required to sustain one’s attention (attentional control) upon events in the present moment (content of attention) with an open, curious or accepting attitude (wholesome emotions) (Bishop et al., 2004; Shapiro, Carlson, Astin, & Freedman, 2006). This practice potentially enables the emergence of non-elaborative perception (bare attention) and insight (ethical discernment) into one’s experiences (Kabat-Zinn, 2003; Shapiro et al., 2006).
Mindfulness practices	Mindfulness practices are exercises to cultivate mindfulness. They include ‘formal’ practices, such as the Raisin Exercise, Body Scan, Sitting Meditation and mindful movement and informal practices of bringing mindful awareness to everyday activities (Baer & Krietemeyer, 2006; Kabat-Zinn, 2005).
Mindfulness-based Attention Training (MBAT)	Mindfulness-based attention training is a school-based intervention that originated in this research as a 10 session course designed to be run twice weekly. It aimed to support children with mild intentional difficulties by teaching them a range of mindfulness practices.

Mindfulness-based Cognitive Therapy (MBCT)	Mindfulness-based cognitive therapy aims to help individuals to change their relationship to their thoughts, feelings and body sensations at a fundamental level, such that this improved understanding reduces the chances of having a depressive relapse (Segal et al., 2002).
Mindfulness-based Stress Reduction (MBSR)	Mindfulness-based Stress Reduction was developed by Jon Kabat-Zinn in the 1980s. It was designed to support patients in health settings in managing chronic pain and stress related conditions (Baer, 2006; Kabat-Zinn, 2005). Later, mindfulness based approaches were adapted to support the needs of a wider range of populations (Didonna, 2009).
Raisin exercise	This exercise brings mindfulness to the activity of eating. In this instance the focus is on experiences that arise before, during and after eating a single raisin, slowly and with as much awareness as possible (Baer & Krietemeyer, 2006).
Sitting meditation	This ‘formal’ mindfulness practice involves adopting an upright and comfortable posture in which to practice mindfulness (Kabat-Zinn, 2005).
Special Educational Needs (SEN)	School-age children may be considered to have SEN if they have a learning difficulty or disability that prevents or hinders them from accessing educational facilities that others their age can. Consequently, they need access to personalised educational provision (DfES, 2001).
Three-minute breathing space	This is a short version of the sitting mindfulness practice, involving firstly developing awareness, then gathering the attention and expanding it (Segal et al., 2002). It has been modified to be suitable for children (Semple & Lee, 2008).

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Chapter 1: Introduction

Overview of the chapter

This chapter introduces the research project as a whole, clarifying its origins, and intentions and presenting a justification for research in this field.

It begins by clarifying the origins of the research: an interest in using mindfulness-based interventions to support children and young people with attentional difficulties. Then it outlines the aims of the research, introduces the research questions and explains its rationale research and intention to make an original and distinctive contribution to educational psychology.

1.1. Origins of the research

The research originated from a professional interest in psychosocial interventions to support children with attentional difficulties and a personal interest in contemplative practices and their use in supporting those with attentional difficulties.

Educational psychology work with attentional difficulties

Educational psychologists apply their understanding of psychology to promote the well-being and educational success of children and young people. This may involve working directly with children, using specific interventions, or by supporting those working with the children themselves, including other professionals, parents and carers (Frederickson, Cline, & Miller, 2008). Consequently, educational psychologists may work with children and young people with a range of needs, such support for attentional difficulties.

At the time of designing the research, those with severe attentional difficulties were likely to become diagnosed with Attention Deficit Hyperactivity Disorder (ADHD), a condition characterised by persistent symptoms of inattention, hyperactivity and impulsivity (*Diagnostic and Statistical Manual of Mental*

Diseases (DSM-IV), 1994; NICE, 2008). A meta-analysis of 102 carefully selected studies concluded that the worldwide prevalence of ADHD was approximately 5% (Polanczyk, De Lima, Horta, Biederman, & Rohde, 2007). In the UK, it was estimated to be between 3 and 9% (NICE, 2008).

Consequently, a significant proportion of children and young people required support for attentional difficulties. The National Health Service has been recommending the use of drugs for severe cases (NICE, 2008). However, such medication has required careful monitoring due to the possibility of numerous side effects, such as stunted growth, heart problems, psychotic symptoms, irritability and liver damage (Breggin, 2002; NICE, 2008).

As a result, there has been a preference for behavioural and psychological interventions, such as training programmes to develop parenting or social skills, particularly for children and adolescents with moderate ADHD (NICE, 2008). However, opportunities to participate in such therapies have tended to be rare and as a result medication is more likely to be prescribed, despite the unwanted consequences of this. Consequently, non-pharmaceutical interventions are needed to help children develop attentional skills.

Mindfulness as an educational psychology specialism

At the time of developing the research, there was an increasing need for advice and support for school staff working with children and young people with attentional difficulties (Wheeler, Pumfrey, Wakefield, & Quill, 2008). Those who provide advice and support, including educational psychologists, need to understand the evidence base for any recommendations made.

With a personal background in practising mindfulness and professional experience teaching such approaches to adults, I explored the evidence for using mindfulness to develop children's attentional skills. There was emerging research in this area (Napoli, Krech, & Holley, 2005; Semple, 2010; Smalley et al., 2009; van der Oord et al., 2012). Overall, the use of mindfulness-based approaches, in schools, to support children and young people with attentional difficulties was an area that warranted exploration.

In 2006, a comprehensive review of the function and contribution of the work of educational psychologists argued for the development of specialist areas as a way of contributing towards professional practice (Farrell et al., 2006). With over ten years professional experience in teaching mindfulness, there was a personal interest in applying such approaches to educational psychology practice. To develop this specialism, I explored the literature, trained in teaching yoga to children with special educational needs (February 2009) and assisted on yoga classes based in special educational settings (April 2009).

A review of the literature revealed that 'Yoga' represented a too broad a corpus of practices to enable studies to be compared together effectively (Birdee et al., 2009). Furthermore, studies on mindfulness were more prolific than those on yoga and 'mindful movement', a specific sub-set of yoga practices, was regarded as a key practice in developing mindfulness (Kabat-Zinn, 2005). Consequently, it was decided to focus the research on mindfulness and its use in supporting children with attentional difficulties.

1.2. Aims of the research

The research was intended to focus on mindfulness for children with attentional difficulties and meet the criteria for doctoral level research:

Aim 1: To create and interpret new knowledge through original research at the forefront of the discipline

The research aimed to be original and extend the forefront of knowledge in educational and child psychology by focusing on areas where the literature was sparse. Such areas include research on understanding children's experiences of mindfulness, the potential use of mindfulness to support those with attentional difficulties and the implementation of mindfulness programmes as part of SEN provision in educational settings. The research aimed to contribute to the emerging literature in these areas.

Aim 2: To acquire an understanding of a substantial body of knowledge at the forefront of educational psychology practice

Another aim was to acquire in-depth and significant knowledge at the forefront of professional practice: the use of mindfulness-based interventions and how these may support children develop attentional skills. The understanding theories of attention and research on the mechanisms of mindfulness lead to speculation on how mindfulness practices may be adapted to support the needs of attentional difficulties and this has been presented in the discussion chapter. Thus, the aim was to develop a doctoral level of expertise in this area, focusing on its relevant to educational and child psychology.

Aim 3: To conceptualise, design and implement the research and adapt it in the light of unforeseen problems

Part of the research was to provide participants with a substantial opportunity to learn and practice mindfulness. At the time of the research mindfulness-based small group intervention was available for implementation in schools to support children develop attentional skills. Consequently, the research included creating, designing and implementing a mindfulness-based intervention for developing attentional skills, the Mindfulness-Based Attention Training (MBAT) intervention. The background to designing and details of the implementation of this intervention are described in the methodology chapter.

Aim 4: To implement applicable techniques for research at doctoral level

A further aim of the research was to acquire an in-depth knowledge of skills required for the particular research. To explore the participants' experiences of mindfulness, the research involved developing in-depth understanding of using Interpretive Phenomenological Analysis (IPA). The rationale for using this and its implementation is further explained in the methodology chapter.

Aim 5: To develop new techniques, ideas or approaches

Another aim was to undertake this research at an advanced level, which would include the development of new techniques. In the exploration of children's experiences of mindfulness, drawings were used as an additional medium of self-expression, thereby enhancing the richness of the children's accounts. How this was done has been outlined in the methodology chapter.

How the drawings contributed to the exploration of children's experiences of mindfulness is detailed in the chapter on Interpretative Phenomenological Analysis and experience of mindfulness. The research included the participants' views on learning mindfulness and applying the practices and this is explained in the discussion chapter.

Aim 6: To develop research skills

In addition to the aims of the research itself, the criterion for doctoral level research included that the researcher would demonstrate the skills related to conducting research in complex environments.

This would include demonstrating the ability to:

- make informed judgements on complex issues in specific fields, including in the absence of completed data
- communicate ideas and conclusions on the research effectively and clearly to a range of audiences
- exercise personal responsibility and take autonomous initiative in complex and unpredictable contexts, such as those in which educational psychologists work

Overall, the research aimed to meet the criteria for doctoral level research in the exploration of children's experiences of mindfulness to help develop their attentional skills. The research was based in a primary school setting and recruited those with mild attentional difficulties as participants. In order to provide the participants with a first-hand experience of learning mindfulness, the MBAT intervention was created. The outcome of these aims is discussed in the concluding chapter.

1.3. Rationale for the research

This research is inherently worthwhile in contributing to the evidence base for the use of mindfulness-based training to help children to develop their attentional skills. While there is emerging evidence of the potential use of mindfulness-based approaches to develop children's attentional skills (Napoli

et al., 2005; Singh et al., 2010; van der Oord et al., 2012), there are also significant studies that indicate a relationship between children's ability to self-regulate attention, their capacity for learning and subsequent academic outcomes (Alloway & Alloway, 2010; Checa, Rodriguez-Bailon, & Rueda, 2008; Loe & Feldman, 2007). Consequently, there is a justification for further research in this area, to inform educational psychologist in the use of mindfulness-based interventions for those with attentional difficulties. The evidence for this is further detailed in the literature review chapter.

In 2010, a comprehensive review of the research on the relationship between significant attentional difficulties (ADHD) and academic performance, it was concluded that academic difficulties appeared to arise from underlying cognitive deficits, rather than co-morbid behavioural difficulties (Daley & Birchwood, 2010).

As a result, it was important to provide those with attentional difficulties with training opportunities to address their underlying cognitive deficits. Evidence also suggested that mindfulness practices may be useful in this endeavour. However, in regards to mindfulness for supporting children with attentional difficulties, the literature is sparse. Consequently, the research was justified in its aims to address this.

At the time of this research, support for children and young people with attentional difficulties was generally provided through the allocation of a support member of staff. The role of this adult was to manage and redirect the attention of those with such difficulties. Unfortunately, as a result, the child or young person was likely to become dependent on such support and would therefore benefit in the longer term from direct teaching on skills for attentional control. A further reason for the research is to empower children and young people by teaching them how to self-regulate their attention.

1.4. Original and Distinctive Contribution

The research aimed to make a distinctive contribution to educational and child psychology by exploring the use of mindfulness to support children with attentional difficulties. It focused on children's experiences of learning mindfulness and their views on teaching it and using it in the school setting.

Qualitative studies on mindfulness are essential to developing an understanding of the mechanisms of mindfulness (Allen, Bromley, Kuyken, & Sonnentag, 2009) and consequently, the research was invaluable in this respect. Its success in meeting this aim is explored in the discussion chapter.

The research made innovations by designing and implementing the Mindfulness-Based Attention Training (MBAT) intervention. This course could become part of a school's SEN provision to support those with attentional difficulties. The research also made an original contribution by developing the resources required to implement the course.

The research also made a distinctive contribution to qualitative methods of data collection by using drawings to facilitate the children's self-expression during the data collection phase of the research. The children were invited to draw and write about what it was like for them to practice mindfulness, a subject that can be challenging to express in words and which could be more richly expressed in through this lesser-used non-verbal medium.

Thus the children were supported in the expression of their experiences, the richness of its findings was enhanced and the consequent quality of the interpretative phenomenological analysis.

Summary of the chapter

This introductory chapter outlined the origins and aims of the research, explaining its rationale and how it intended to make a unique and distinctive contribution to educational psychology practice. The choice of mindfulness as the research area originated from a personal and professional interest in mindfulness and emerging research in its use for developing attentional skills.

Chapter 2, Literature Review, explores the theoretical research background to the research of mindfulness, emphasising where the literature was sparse and how the research questions were developed.

Chapter 3, Methodology, describes how the research was implemented.

Chapter 4 considers how the Child Acceptance and Mindfulness Measure (CAMM) provided background to the participants' attentional difficulties and measured changes their levels of mindfulness traits.

Chapter 5 presents the interpretative phenomenological analysis (IPA) of the children's experiences of mindfulness and includes details of the children's drawings and their interpretation.

Chapter 6, Discussion, examines how the research questions were addressed and the limitations and implications of the research. It includes speculation on how mindfulness may help address different types of attentional difficulty.

Chapter 7, Conclusion, reviews the aims, the research's original and distinctive contribution to educational psychology and future plans.

The next chapter reviews the literature on which the aims of the research were developed and the research questions were based.

Chapter 2: Literature Review

Overview of the chapter

This chapter reviews the literature relevant to the research: an exploration of children's experiences of learning mindfulness to help develop their attentional skills. It presents the research background, clarifies areas where the literature was sparse and explains how the research questions were thus developed.

Research papers were included from a range of sources, including research databases, books, recommendations from other colleagues in the field, information on conferences on mindfulness and use of the worldwide web. One of the primary sources was EBSCO, a research database that enabled access to a range of papers. Only articles that had been peer reviewed were chosen thereby establishing a level of quality appropriate for the research.

Research on mindfulness has been increasing at an exponential rate. For example, using the EBSCO database alone, there were 26 new peer-reviewed papers on mindfulness in 2000. In 2008, when the research was proposed, the number was 368 and, in 2010, it was 677. By July 2011, there were 345 new papers and consequently, the review includes a range of recent articles.

Section 2.1 focuses on defining mindfulness and outlines a model for conceptualising mindfulness and understanding its underlying processes. Sections 2.2, 2.3 and 2.4 review studies from quantitative research on mindfulness. This includes an exploration of evidence for the efficacy of mindfulness based interventions in general and emerging research on the use of mindfulness-based interventions with children, including those with attentional difficulties. Section 2.5 considers qualitative research on understanding participants' experiences of mindfulness and Section 2.6 summarises where the literature was sparse and consequently presents the research questions.

2.1. Mindfulness and its underlying theory

"Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgementally" (Jon Kabat-Zinn, 1994, p.4).

The concept of 'mindfulness' is not straightforward to describe or explain (Crane, 2009). The term itself has been used in many ways, including to refer to mindfulness as a disposition quality, a state of being or an intervention (Davidson, 2010). Furthermore, it could be argued that a first-hand experience of mindfulness is required before it can be fully understood (Maitreyabandhu, 2009). This review begins by outlining the definition and model of the mechanisms of mindfulness that were used in the research.

2.1.1. Defining mindfulness

Although the practice of mindfulness itself is secular, it originated in a number of spiritual traditions, including Buddhism (Baer, 2006; Crane, 2009). Buddhism is a religion, albeit one without a belief in a 'supreme being' or eternal soul (Keown, 1996). One of its core teachings, the 'Four Noble Truths', attributes dissatisfaction in life to the habit of craving pleasant feelings and avoiding unpleasant ones. It further explained that this suffering is not inevitable and may be ended by following the 'Noble Eight-fold Path' (Harvey, 2001). The seventh step of this path is the cultivation and perfection of mindfulness ("sati", in Pali, or "smirti", in Sanskrit) (Analayo, 2010). Consequently, in this context, mindfulness is part of a system of practices to eliminate suffering and cultivate transcendental states of being towards an ultimate state of 'enlightenment' (Analayo, 2010; Chaskalson, 2005).

In the clinical context, mindfulness was introduced to health care settings in the 1980s by Jon Kabat-Zinn (Baer, 2006). Mindfulness was presented as a state: an awareness arises from purposefully paying attention to the present moment non-judgementally (Kabat-Zinn, 1994, 2003, 2005). However, this definition required further aspects from Buddhism in order to present a more complete account (Dreyfus, 2011; Williams & Kabat-Zinn, 2011).

2.1.2. The process of mindfulness

Mindfulness, as a process, can be described by a more complete model that uses the five dimensions of intention, bare attention, attentional control, wholesome emotions and ethical discernment (Dorjee, 2010). Mindfulness arises through a process that begins by *intentionally* using *attentional control* to focus on events in the present moment, thereby making these the *contents* of attention, and cultivating *wholesome emotions* through an open, curious or accepting attitude (Bishop et al., 2004; Shapiro et al., 2006). The process enables sensory information to be processed at a stage prior to mental elaboration, *bare attention*, such that perception is direct and non-conceptual (Analayo, 2010). This lucid awareness may lead to insight or a clearer comprehension (Bodhi, 2011) and the 'reperception' of one's experiences (Kabat-Zinn, 2003; Shapiro et al., 2006). At this stage, more considered choices may be made, thereby utilising *ethical discernment* (Dorjee, 2010).

The concept of 'reperception' was also found in phenomenology (Shapiro et al., 2006), a philosophical approach that originated in the work of Edmund Husserl, a 20th century philosopher and which advocated a return to understanding of lived experience and its meaning to the individuals concerned (Langdridge, 2007). This school of thought was relevant to understanding the experiential nature of mindfulness, since phenomenology and Buddhist approaches shared an interest in exploring first-person experience (Brown & Cordon, 2009). Husserl described two modes of processing, the "natural" and "phenomenological" approaches. The natural attitude is a default mode of habitual and automatic processing of subjective experiences that prevents us from impartially experiencing reality (Brown & Cordon, 2009). In contrast, the phenomenological attitude involves "bracketing" the natural one, thereby stepping out of automatic conceptual processing and attending to present moment experiences, in order to become aware of reality as it is. The phenomenological attitude parallels the concept of mindfulness; both involve focusing on present moment experiences and involve suspending habitual patterns of cognitive processing. How the

phenomenological attitude was utilised in the research is further explained in the methodology chapter.

Definitions of mindfulness have been shaped by Buddhist and research contexts. In terms of practicing mindfulness, there is value in considering further aspects of the Buddhist perspective (Chaskalson, 2005). Buddhist and clinical conceptions of mindfulness are now explored and a model of the mechanisms of mindfulness that embraces both is introduced.

2.1.2. Buddhist and clinical perspectives on mechanisms of mindfulness

An EBSCO search on the key words “mindfulness and definition and mechanism” presented four papers. The first was not useful as it had been written in Italian and no translation was available. The second was also not further considered, as it focused on the applications of mindfulness with Chinese populations which was not appropriate for this research. The remaining articles by Rapgay and Bystrisky (2009) and Carmody (2009) are reviewed to illustrate contrasting conceptualisations of mindfulness and outline some differences between Buddhist and clinical perspectives on how mindfulness works.

From the Buddhist perspective, mindfulness was practiced as a form of cognitive training to completely eliminate suffering and cultivate of a state of ineffable liberation (Chaskalson, 2005). In clinical settings, however, the intention was to alleviate of symptoms of distress (Carmody, 2009). This could be argued to be underestimating the potential of mindfulness. However, in the Buddhist context, practitioners have opportunities to develop their mindfulness experience and can therefore focus on more advanced goals. In the clinical setting, however, those practicing tend to be beginners and consequently, more modest aims are appropriate.

The clinical perspective tended to emphasise attentional control (Carmody, 2009). However, Buddhism emphasised the distinction between attention and awareness, even though these activities are interrelated and can be practiced

together (Mikulas, 2011). This perspective explained that for the cultivation of insight (mindful awareness), there needs to be a balance between concentration and maintaining an expanded and open awareness (Rapgay & Bystrisky, 2009). In support of this, evidence from neuroscience research suggested that the processes of attentional control and awareness (for insight) use different neural pathways in the brain (Lutz, Slagter, Dunne, & Davidson, 2008). This implies that a distinction between attentional control and awareness is required (Dorjee, 2010; Kabat-Zinn, 2003; Mikulas, 2011). Consequently, the clinical model's focus on the development of attention represents part of the process of cultivating mindfulness.

The Buddhist perspective also argued that the process of adopting an attitude of acceptance was more likely to stimulate mental elaboration. Consequently, a more neutral approach needed to be encouraged, thereby enabling the spontaneous arising of experience (Rapgay & Bystrisky, 2009). However, for newcomers to practicing mindfulness, there is a tendency towards self-criticism and judgement associated with early stages of practicing (Kabat-Zinn, 2005). Therefore, positive attitude or self-compassion are needed. Modification stages are more appropriate for the adept (Chaskalson, 2005).

In summary, the Buddhist perspective appears to related to more experienced practitioners with an intention to completely alleviate suffering. Their practice adopted a neutral approach towards the contents of attention to minimise or eliminate mental proliferation. In contrast, the clinical approach was designed for beginners who wish to reduce their suffering and need to begin by developing their concentration and cultivate acceptance and openness. Both perspectives were appropriate to experience of the practitioner.

One model of the mechanisms of mindfulness, the Buddhist Psychological Model (BPM), united Buddhist and clinical perspectives (Grabovac, Lau, & Willett, 2011). It proposed that as sensory information arises in consciousness, there are associated positive, neutral or negative feelings which trigger mental elaboration unless the individual is in a state of pre-conceptual awareness or mindfulness. In more automatic states, mental

proliferation self-perpetuates, intensifying any positive or negative feelings, and thereby generating craving or aversion respectively and consequently longer term discontentment. From the clinical perspective, beginners need to start by attending to the contents of consciousness. From the Buddhist perspective, the next steps are to reduce then eliminate the mental proliferations by exploring the origins of the associated feelings. The BPM was adopted by the research as it presented an in-depth understanding of the mechanisms of mindfulness (Grabovac et al., 2011).

This section outlined the origins of mindfulness and compared Buddhist and clinical conceptualisations of mindfulness. The next section reviews research on practicing mindfulness and its impact on cognitive development.

2.2. Research on mindfulness

Most research on mindfulness, as with research in general, has been quantitative. Such research, based in the postpositivism paradigm, aims to develop evidence to support or refute particular claims (Mertens, 2005). Quality quantitative research is able to show that any results are valid both internally and externally to the experimental context. Internal validity is when the research has been designed to adequately control for extraneous variables and consequently any resultant causation between the variables under investigation may be considered reliable. Research has external validity when its results may be generalised to other situations (Mertens, 2005). In this section, research on mindfulness is critiqued according to the validity of the results. (Qualitative research studies are reviewed in Section 2.5.)

2.2.1. The beginnings of mindfulness research

Research into mindfulness in health care settings was pioneered by John Kabat-Zinn during the 1980s. He designed the Mindfulness Based Stress Reduction (MBSR) programme, which included mindfulness practices, such as sitting meditation, moving mindfully into yoga postures and the body scan. Participants also learnt more informal practices, such as to remember to

cultivate mindful awareness during day to day activities, such as when brushing the teeth or having a shower, to cultivate general mindfulness.

MBSR was designed to help patients with chronic pain. These patients have medical conditions that had not improved despite treatment (Kabat-Zinn, 1982). To develop the evidence base for MBSR, a preliminary study was conducted. Participants rated their levels of pain before and after attending a MBSR course and significant reductions in patients' self-reported levels of pain were found (Kabat-Zinn, 1982). Furthermore, there was anecdotal evidence of reduction in participants' dependence on prescription medication.

Despite these results, firm conclusions could not be made due to the lack of an appropriate control group. Furthermore, the data could also have been subject to bias: the researcher could have overestimated the reductions in medication and the participants could have denied or exaggerated any changes. In conclusion, further research was needed (Kabat-Zinn, 2003).

Since that time, research on mindfulness has increased exponentially with mindfulness based approaches being adapted for a wide range of populations (Didonna, 2009). For example, Mindfulness-Based Cognitive Therapy (MBCT) was developed to help those with depression and Dialectical Behaviour Therapy (DBT), for behavioural difficulties (Didonna, 2009). Such research has provided preliminary support for the use of mindfulness for a range of needs, including anxiety (Greeson & Brantley, 2009), depression (Kuyken et al., 2008) and attentional difficulties (Zylowska, Smalley, & Schwartz, 2009). This emerging research, however, has tended to have methodological shortcomings, such as the lack clear control groups or randomly allocation of participants to either the treatment or control groups. As a result, more robust research has been required. One important step in this research was the development of an operational definition of mindfulness.

2.2.2. Measuring mindfulness

Robust measures were required in order to clarify the mechanisms of mindfulness. This would enable explanation for the benefits of practicing mindfulness that were suggested in preliminary research (Baer, Walsh, & Lykins, 2009). However, in order to develop such measures, the construct of mindfulness needed a more precise definition. This task has not been straightforward and has been criticised for oversimplification (Bishop et al., 2004; Brown, Ryan, & Creswell, 2007; Grossman, 2011). Even so, a rigorous process of collaboration enabled an operational definition of mindfulness to be proposed. It defined mindfulness in terms of the regulation of attention onto events in the present moment and the cultivation of a positive attitude of openness, acceptance and interest (Bishop et al., 2004). This definition, somewhat reductionist and simplistic, has been subsequently elaborated upon, as described in the previous section (2.1. Mindfulness and its underlying theory).

Nevertheless, this operational definition enabled a range of measures of mindfulness to be developed. One measure, the Five Facet Mindfulness Questionnaire, was unique in that it was created by analysing five different measures of mindfulness and merging their items into a single dataset (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Five factors encompassing a definition of mindfulness emerged: *Observing*, noticing internal and external information stimuli; *Describing*, labelling such experiences; *Acting with awareness*, attending to immediate activities without automaticity; *Non-judging of inner experience*, adopting an attitude of acceptance to the experiences such as thoughts and feelings; and *Nonreactivity to inner experience*, not reacting to these inner experiences (Baer et al., 2006). The strength of this measure was that it was more versatile and provided a broader conceptualisation of mindfulness. It was used to measure correlations between mindfulness and aspects of psychological functioning, as well as to compare experienced practitioners to novice ones (Baer et al., 2009).

Using such measures, research has found positive correlations between mindfulness and other factors, including well-being (Brown & Ryan, 2003), attentional control (Walsh, Balint, Smolira, Fredericksen, & Madsen, 2009) and improved emotional regulation (Mitmansgruber, Beck, & Schubler, 2008). Mindfulness has also been negatively associated with depression (Argus & Thompson, 2008) and self-reported and displayed aggression (Heppner et al., 2008). However, one methodological issue is that these self-report inventories expose the research to significant bias arising from the participant's responses. Without an absolutely objective way of measuring mindfulness, the validity of research based on self-reported ratings may be questioned (Davidson, 2010). Nevertheless, evidence from more objective measures, such as those used in neuroscience, has been available.

2.2.3. The neuroscience of mindfulness

Neuroscience involves the use of electroencephalography (EEG) and functional Magnetic Resonance Imaging (fMRI), to study the brain (Gazzaniga, Ivry, & Mangun, 2002). Research shows that mindfulness practices have both a short and long-term impact on the brain state, known as 'state' and 'trait'. 'State' mindfulness arises with the intention to aim and sustain attention on present moment experiences, that is, to cultivate mindful awareness (Bishop et al., 2004; Lau et al., 2006). Regular long-term practice results in neurological alterations in brain activity and structure, known as 'trait' effects (Treadway & Lazar, 2009). Although it is complex to interpret the data on brain activity during meditation because brain states vary from moment to moment (Olendzki, 2009), the brain states of inexperienced or novel meditators are significantly different to that of advanced ones. Long term practitioners of meditation, such as Buddhist monks, or nuns, are found to have traits associated with neural plasticity, cognitive restructuring and learning (Fell, Axmacher, & Haupt, 2010). Studies also indicate differences between brain states measured while relaxing as compared to concentrating during mindfulness (Treadway & Lazar, 2009).

Although research on the long term results of meditation practice is still emerging (Cahn & Polich, 2006), there is evidence of trait-like transformations in the brain structure as a result of sustained and regular meditation practice. This includes increased cortical thickness in the areas of the brain associated with executive decision making and attention. There is also improved activation in specific parts of the brain, including those whose function is the integrate attention, motivation and motor control (Paus, 2001); interoception (internal awareness of sensations) and processing of transient bodily sensations (Brefczynski-Lewis, Lutz, Schaefer, Levinson, & Davidson, 2007) and increase in positive affect (Davidson et al., 2003). So overall, this more objective evidence indicated the long-term effects of meditation as being increased self-awareness, concentration and positive emotions.

2.2.4. Mindfulness and cognitive functioning

To explore the literature on mindfulness and cognitive functioning, the literature was searched for articles that reviewed mindfulness research in a systematic way, considering cognitive and neuropsychological effects. EBSCO was searched for “mindfulness and review and systematic and effects and cognitive and neuro*” and two articles, both by the same authors, were found. The most recent was selected for review, since it referred to the earlier article (Chiesa, Calati, & Serretti, 2011). It discussed the evidence base for mindfulness and cognitive functioning, including attention, retention of information and executive functioning.

Attention, like mindfulness, is a concept that can be difficult to describe precisely. It refers to various aspects of cognition that are within conscious control (Styles, 2006). Cognitive neuroscience has provided evidence from neuroimaging studies for three specific neural networks related to the functions of ‘alerting’, ‘orienting’ and ‘executive’ (or ‘conflict monitoring’) attention (Posner & Rothbart, 2007). Alerting is an initial process of being sensitive to and aware of stimuli. Orienting involves selecting information from the different senses, including aligning the attention with the source of the sensory input. Executive attention includes processes to manage and

resolve different information sources, including thoughts, feelings and responses. These attentional networks developed through a complex interplay between genes, psychological and social factors, resulting in individual differences in self-regulation, the ability to regulate and control one's attention (Posner & Rothbart, 2007).

One comprehensive database search (Chiesa et al., 2011) explored the impact of mindfulness on cognition. It reviewed 23 randomised or case controlled studies, clarifying and evaluating their contribution to the evidence base for mindfulness meditation. It found evidence for significant improvements in different aspects of attention when mindfulness programmes were delivered as standardised and when controls had either staying on a waiting list or participated in a relaxation condition. Furthermore, mindfulness practices were strongly associated with the development of sustained and focused attention. In addition, those who had practised mindfulness for longer had more developed attentional skills as compared with matched controls (Chiesa et al., 2011; Chiesa & Serretti, 2010). Consequently, it concluded that there was evidence that mindfulness meditation could benefit cognitive functioning.

This review also highlighted the need for high-quality studies to investigate standardised mindfulness meditation programs (Chiesa et al., 2011). Such studies would need to address the limitations of having a control group of having no treatment, 'treatment as usual' or being on a waiting list. When this happens, any findings may be attributed to simply doing something different (Coelho, Canter, & Ernst, 2007). The 'dismantling' design, for example, keeps the control condition identical to the experimental condition except for one essential factor, namely, the inclusion of mindfulness practices (Williams, Russell, & Russell, 2008). Three universities, Oxford, Exeter and Bangor, are currently collaborating to research the extent to which outcomes may be attributed to practicing mindfulness ("Research at the Centre for Mindfulness Research and Practice," 2011). At the time of writing, their results were yet to be published.

In a detailed critical examination of the review by Chiesa et al (2011), two studies were identified that were identical in that they both used three conditions: an experimental condition (involving mindfulness training), a control condition (in which participants either stayed on a waiting list or engaged in a mental activity) and a condition in which participant engaged in relaxation training (Ortner, Kilner, & Zelazo, 2007; Polak, 2009). These studies also used self-report questionnaires to assess 'trait' effects of practicing mindfulness. Both studies found no difference between those who had participated in the mindfulness or relaxation conditions; both conditions resulted in state effects of decreased emotional reactivity (Ortner et al., 2007) and improved performance in aspects of attention or memory (Polak, 2009). However, of these two studies, the one that provided longer training (in both mindfulness and relaxation) found that mindfulness training reduced emotional interference in tasks (Ortner et al., 2007). In this study, the training took place weekly over seven weeks, whereas in the other, the participants engaged in two short (15-minute) sessions. This is a significant difference in the mindfulness or relaxation training between the two studies. To enable effective comparisons to be made between studies, standardised mindfulness programmes and sufficient mindfulness training for participants were needed.

Although both these studies were conducted on those new to mindfulness practices, there are difference between such cohorts and those who are more experienced. In the review paper (Chiesa et al., 2011), there was one study that investigated the hypothesis that mindfulness training may affect specific aspects of cognitive ability (Jha, Krompinger, & Baime, 2007). The finding was that while attentional skills improved for each group (following mindfulness training), there were different changes in state mindfulness depending on whether the group was experienced or novice.

Essentially, through the mindfulness training, those new to mindfulness improved in orienting and conflict monitoring, implying an improvement in 'top-down' processes for emotion and attention regulation. In contrast, the more experienced group demonstrated improved alerting attention, those related to 'bottom-up', involuntary processes. Consequently, length of prior training

affects the neurological expression of 'state' mindfulness, with short-term training developing top-down regulation of attention, and longer-term training affecting bottom-up regulation (Jha et al., 2007). However, this difference may have been due to each group having received slightly different training in mindfulness, since even subtle differences in how mindfulness is taught may lead to differences in state mindfulness (Chiesa, Serretti, & Jakobsen, 2013). It is possible that top-down and bottom-up mechanisms operate on a continuum, complementing each other, making 'state' mindfulness a complex interplay between these processes (Chiesa et al., 2013).

Consequently, while mindfulness training may enhance specific subsystems of attention, any comparisons between studies need to take into account the skills and experience of the participants as well as the type and length of mindfulness practice. Overall, the evidence base for mindfulness-based interventions has included numerous studies, including those indicating that mindfulness develops positive affect and enhances cognitive function. The next section examines the impact of mindfulness on attentional skills.

2.3. Mindfulness and attentional skills

"Attention is characterised by a limited capacity for processing information and that this allocation can be intentionally controlled" (Styles, 2006, p.1).

2.3.1. Educational psychology work with attentional difficulties

While most people develop sufficient control of their attention, a minority exhibit attentional difficulties. Those with pervasive and impairing symptoms of inattention, hyperactivity and impulsivity meet the criteria for a diagnosis of attention deficit hyperactivity disorder (ADHD) (*Diagnostic and Statistical Manual of Mental Diseases (DSM-IV)*, 1994). The prevalence of ADHD is difficult to ascertain and is approximately between two and eighteen percent of the population (Skounti, Philalithis, & Galanakis, 2007).

ADHD is an area of particular professional interest to educational psychologists, due to increasing concerns about inclusion of children with significant attentional difficulties in school settings (Wheeler et al., 2008). Furthermore, there is also a likelihood of associated low attainment for those unable to concentrate sufficiently well (Loe & Feldman, 2007). For school-age children and adolescents with severe impairment from ADHD, drug treatment is recommended as part of a comprehensive treatment plan, including detailed advice and interventions (NICE, 2008). Since socialisation is a key aspect of the complexity of factors affecting the development of attention, interventions for parents (such as parent training) are also recommended by these guidelines. Educational psychologists are well-placed to provide advice and support in this regard for children, their families and school staff.

This part of the review explores research on how attentional skills develop and the impact of attentional training with children. It also reviews the literature on teaching mindfulness to children with ADHD to help their attentional skills.

2.3.2. The development of attentional skills

The ability to regulate and control one's impulses is known as effortful control and is a factor that influences the development of an individual's personality (Rothbart, 2007). It encapsulates the will-power required to focus and sustain the attention, despite distractions. It is part of the executive attention network that functions to monitor and resolve conflict and maintain the other attentional processes of alerting and orienting (Rothbart, 2007).

To review the literature on self-regulation and development of attention, an EBSCO search was conducted on the keywords "executive attention and self-regulation and effortful control and child development not ADHD". Three articles were obtained, all including the authors Michael Posner and Mary Rothbart (Rothbart & Posner, 2005; Rueda, Posner, & Rothbart, 2005) (Rothbart, Sheese, & Posner, 2007). Their contributions to an understanding of the development of executive attention and self-regulation are discussed.

Self-regulation is the ability to control a range of cognitive processes, including those for attention (Rueda, Posner et al., 2005). It is required to flexibly regulate thought, emotions and behaviour and other skills required for socialisation, such as being able to resist temptation, delay gratification and suppress emotional reactions (Rothbart & Posner, 2005). Consequently, it is important to support child's development of such skills (Rothbart et al., 2007).

In order to explore how specific training affected the development of executive attention, a five-day training intervention was tested on a group of young children (49 4-year-olds and 29 6-year-olds) (Rueda, Rothbart, McCandliss, Saccomanno, & Posner, 2005). Although the sample size was modest, the results suggested that the executive attention networks of the 6-year-olds had improved as a result of this attentional training. No such improvements were evident for the 4-year-olds or untrained 6-year-olds. Consequently, such training programmes could potentially develop attention skills (Rothbart et al., 2007). The following section describes the use of mindfulness for this.

2.3.3. Teaching mindfulness to children with ADHD

There is evidence that mindfulness training had a positive effect on attentional skills in adults (Chiesa et al., 2011; Jha et al., 2007). The related literature was reviewed in Section 2.2.3. Mindfulness and cognitive functioning.

The evidence base for mindfulness interventions with young children was still emerging (Burke, 2009; Huppert & Johnson, 2010) and included studies that focused on developing children's attentional skills using mindfulness-based approaches (Flook et al., 2010; Napoli et al., 2005). Almost by definition, mindfulness included developing skills for paying attention. To further explore the literature on teaching mindfulness to those with severe attentional difficulties a database search was made on "mindfulness and ADHD and teaching". Two articles were found, the first of which described a feasibility study in which an eight-week mindfulness training programme was implemented. The participants were a moderately sized group of twenty-four adults and eight adolescents with ADHD (Zylowska et al., 2008). The

intervention aimed to address the characteristic symptoms of attentional difficulty, the neuro-cognitive aspects of attention and self-regulation and emotional issues related to stress-related anxiety and depression. The research was innovative in its adaptation of mindfulness practices for those with ADHD and combining this with a psycho-social component on ADHD itself (Kabat-Zinn, 2005; Segal et al., 2002).

The participants were assessed before and after the intervention, using self-report scales to measure levels of symptoms of ADHD, depression and anxiety. Cognitive assessments were also completed, with the assurance that no stimulant medication had been taken in the prior twelve hours. The results indicated significant improvements in attentional skills, with eighteen out of twenty-three participants (78%) reporting a reduction in symptoms of ADHD. No improvements in working memory were found. This preliminary research supported the potential use of mindfulness approaches for those with attentional difficulties. One shortcoming of the study related to the validity of the self-report measures and an alternative could have been to have used a more objective measure for the symptoms of ADHD.

Another study focused on how parents may teach their children self-control by using strategies to improve parent-child interactions (Singh et al., 2010). The participants were two mothers (aged 34 and 36) and their sons (aged 12 and 10 years old), both of whom had ADHD. They all completed a 12-session mindfulness training programme during which data on their interactions was collected, including included in-depth information on the mother-child dyad. Both parents found the mindfulness practices calming and enjoyable, although physically and mentally challenging, especially in the early sessions. At different stages during the course, both parents began tapering their children's medication (under medical supervision) and eventually discontinued it. Although lacking an experimental and a control group and having a very small sample size, this research indicated the potential use of mindfulness in supporting families and children with ADHD (Singh et al., 2010).

These, and other studies (van der Oord et al., 2012) present some tentative evidence for the feasibility of using mindfulness-based interventions for significant attentional difficulties. While acknowledging the mediating effects of genetics and environment on the development of attention (Rothbart & Posner, 2005), there appears to be some potential for the use of training to develop skills in self-regulation and attention. Much research in mindfulness has focused on adults and that for children is at an even earlier stage (Burke, 2009). This is now reviewed.

2.4. Mindfulness with children in school settings

2.4.1. Overview of mindfulness research with children

In order to adapt mindfulness practices for children, the developmental differences between them and adults need to be considered, especially those related to attention and cognition (Hooker & Fodor, 2008; Saltzman & Goldin, 2008; Semple, Lee, & Miller, 2006), including memory and attentional capacities (Semple et al., 2006). As a result, mindfulness practices are more accessible to children and young people when they are shorter and more repetitive. Furthermore, children are more likely to engage when games and stories are integrated into the teaching of mindfulness (Kaiser-Greenland, 2010) and when other significant adults, such as parents, are involved.

Some preliminary studies have found mindfulness-based interventions for children useful, including to reduce symptoms of childhood anxiety (Semple & Lee, 2008), treat chronic paediatric pain (Wicksell, Greco, & Hayes, 2008) and address eating disorders (Greco, Barnett, Blomquist, Gevers, & Hayes, 2008). One controlled trial explored mindfulness for developing attention skills in a school setting (Napoli et al., 2005). Its participants (N=194) were randomly allocated to either the experimental condition (the 24-week mindfulness programme) or control (no programme). The results indicated that those in the experimental group had lower levels of test anxiety and higher scores for attention skills. While its sample size was reasonable and objective measures

of attention were used, one limitation was that to assess behaviour, teacher reports were used and these had the potential to be biased.

To review the research on mindfulness with children, an EBSCO search was conducted on “mindfulness and approaches and children and research and review not (book or depression)”. The result was an article that thoroughly reviewed 15 studies on secular, contemplative mindfulness practices with children and adolescents, including research on individual cases and small samples (Burke, 2009). It discussed methodological issues such as small sample sizes and the lack of control groups or random allocation to the experimental or control group when one was used. Overall, the mindfulness practices were well received by the participants, positive benefits were found through these pioneering studies, including the reduction of anxiety (Semple, Reid, & Miller, 2005), improved attention (Napoli et al., 2005) and improved behaviour in a group of adolescents with conduct disorder (Singh et al., 2007)

Overall, the review emphasised how research on mindfulness with children is at a pioneering phase, and how results so far have justified the viability and suitability of mindfulness-based approaches for children. As a results, it called for more rigorous experimental designs (Burke, 2009). Of the 15 studies that were examined only four were based in schools. One was home-based and the rest were in clinical or health settings. This highlighted the need for research in school settings, a context that is most relevant to the work of educational psychologists. It is this area of research that is explored next.

2.4.2. Research on mindfulness in schools

With emerging evidence for the feasibility of mindfulness-based approaches the children and young people, there is a need for larger scale, randomised controlled trials, particularly in school settings where these young participants spend much of their time (Carelse, Gersch, Cameron, & Lloyd-Bennett, 2010). In order to identify research on mindfulness in schools with children or adolescents, an EBSCO search was conducted using the keywords “mindfulness and education and school and (children or adolescents) and

training and practice not nursing". Two articles were found: one based in the UK (Huppert & Johnson, 2010) and the other in the US (Flook et al., 2010). These examples of mindfulness research in school settings are now critiqued.

The UK study focused on mindfulness training in two independent boys' secondary schools (Huppert & Johnson, 2010). Using a reasonable sample size (N=155), it investigated the impact on well-being of participating in either a mindfulness intervention or a control group. The results indicated significant increases in levels of mindfulness and psychological health associated with the extent of personal practice undertaken beyond the sessions. The study was also pioneering in investigating the correlation between mindfulness practice at home and levels of mindfulness, as there has been little research on this aspect of practice (Vettese, Toneatto, Stea, Nguyen, & Wang, 2009).

One limitation was that the measures were those designed for adult samples, reflecting the need for mindfulness measures for adolescents (Brown, West, Loverich, & Biegel, 2011). Furthermore, it had not been possible to randomly allocate the participants to either group, as allocation was automatically to the experimental group if a teacher of mindfulness was available for that class. Overall, this preliminary research has been encouraging and a larger study, a randomised controlled trial, is planned (Huppert & Johnson, 2010; Mindfulness in Schools Project," 2010).

The US study investigated the effect of mindful awareness practices (MAPs) using teachers' and parents' assessments of their children's executive functioning, the ability to self-regulate behaviour (Flook et al., 2010). Assessments were made before and after the participants engaged in an eight-week program of two half-hour mindfulness practice sessions per week. While the sample size was smaller (N=64) than in the previous study, the design of this research was more rigorous. Participants had been randomly allocated to either the experimental or control group (where they read in silence). The results indicated that children in the intervention group with initially lower levels of cognitive functioning showed the most improvement. Furthermore, teachers and parents reported that the children become better

able to regulate their behaviour both at school and home. One limitation could have been in the process of matching the participants prior to allocation to the groups and details of how this was done were not described in the article. Without a suitable matching process, it is possible that those allocated to the mindfulness group had been more receptive to change in some way. Furthermore, by using teachers and parents to complete ratings of the participants' executive functioning, there was some potential for bias and a more objective measure would have been more suitable.

In summary, the review has considered the potential of teaching mindfulness approaches to children, to support their cognitive functioning, attentional skills and general well-being. To further develop the evidence base for mindfulness in school settings, there was a need for larger studies with sufficient numbers of teachers trained to deliver a standardised mindfulness package. Fortunately, plans for this are already underway (MISP, 2011). So far, the literature review has focused on studies that aimed to measure the impact of practicing mindfulness and there has been some indication that mindfulness training can benefit the development of attention. Literature on participants' experiences of mindfulness will now be reviewed.

2.5. Understanding experiences of mindfulness

In this section, qualitative research on mindfulness is critiqued. One way of judging the quality of qualitative research is to consider the extent to which it is credible, transferable, confirmable and authentic (Mertens, 2005). This approach to quality has been selected as it related to educational settings. Research is credible when the participants' perspectives have been portrayed fairly and accurately, for example, by gathering information through sustained and prolonged contact with the participants. A judgement about transferability is possible when sufficient detail is made available to compare the research and the receiving context. Confirmability involves making explicit the logic used to interpret the findings. Authenticity is about ensuring that a well-balanced perspective is provided, for example by using information from more

than one source (Mertens, 2005). Qualitative research in mindfulness has focused on exploring the subjective experience of mindfulness itself (Brown et al., 2007). Such research has contributed to long-standing discussions on the philosophy and psychology of consciousness, especially in the fields of phenomenology and Buddhism. They have contributed to an understanding of how mindfulness works (Allen et al., 2009; Mason & Hargreaves, 2001).

2.5.1. The experience of an adolescent learning mindfulness

To explore qualitative studies on mindfulness, an EBSCO search was conducted on the terms “mindfulness and qualitative”. Of the studies identified, most focused on adult participants. Consequently, the search was refined to “mindfulness and qualitative and children” and this identified qualitative research on mindfulness with children. However, these research papers did not explore children's experiences, and instead were either predominantly quantitative (Lee, Semple, Rosa, & Miller, 2008) or focused on the effects of or views on participation (Coholic, 2011; Kempson, 2012; Sibinga et al., 2011).

When EBSCO was searched using the keywords “mindfulness and qualitative and child and experiences”, three research papers were identified. Of these, two were eliminated for being irrelevant: one focused on adult gender identity and the other, on a self-help group for adults. The remaining article explored the experiences of an adolescent who was completely new to mindfulness practices (Dellbridge & Lubbe, 2009).

Since only one article was found, informal searches, including on ‘google scholar’ were conducted. These did not lead to further papers exploring the children’s experiences of mindfulness. Consequently, qualitative studies that focused on children’s experiences of mindfulness appeared to be non-existent at the time of this review.

The paper by Dellbridge and Lubbe (2009) was critically examined. In this research, the participant and the researcher had both attended a series of

mindfulness sessions. There was some genuineness to the findings; the data had been enriched through gathering information from numerous sources, including structured interviews, journals and field notes. Furthermore, the findings had been confirmed through the use of more than one approach, a typological and an interpretive one. The topological analysis had included a process of sorting the findings into predetermined categories, such as "present-centred awareness and attention" and "attitude and heart qualities", that had been generated by examining theories on mindfulness.

The main shortcoming of this study was that transferability, the extent to which generalisations could be made, was limited due to there being only one participant. Nevertheless, the study was useful in exploring of the experiences of this young person and the main finding was that she interpreted mindfulness in terms of her success in being able to focus on present moment tasks (Dellbridge & Lubbe, 2009).

2.5.2. The experiences of adult participants

To further the review on qualitative studies, two examples of studies with adults have been selected. One study examined seven participants' experiences of the therapeutic process in the standardised mindfulness course for depression, MBCT. Its findings were that they valued the mindfulness skills that they had developed, including becoming more accepting in attitude and better able to live fully in the present moment (Mason & Hargreaves, 2001). These findings have credibility in that they were collected over a sustained period of time, over two stages. Furthermore, there was authenticity in that numerous quotes were drawn from the participants' accounts. One shortcoming is possibly that the participants had had insufficient time to develop their skills in mindfulness as they had been interviewed close to when they completed the course (Allen et al., 2009). Nevertheless, this meant that although the participants had less to say about their personal practice, they were able to recall more detail about the course itself. This detail has contributed to the transferability of the study.

Another study, also on adults, aimed to explore the experiences of participants and their views on the value of mindfulness for depression (Allen et al., 2009). The findings were based on interviews conducted one year after they had also completed an MBCT course. Four themes were identified, namely control, acceptance, relationships and struggle.

Firstly, the participants found that they developed a belief in their ability to notice early signs of depression and thus be able to put in place strategies to prevent relapse. They also found that they were more detached from the depression and confident in talking to others about their emotional difficulties. They developed a greater sense of kindness towards themselves and increased closeness and communication with and empathy towards family and friends.

These findings were interpreted with reference to theories on how mindfulness works. They contributed to emerging understanding on the ability of mindfulness to enhance self compassion and responsiveness in interpersonal relationships (Allen et al., 2009). They had authenticity in that they were triangulated using various theories on mindfulness. Furthermore, they appeared transferable due to the level of detail provided and potentially provided a rationale for emphasising aspects that hitherto had been overlooked, such as the finding of improved personal relationships.

This section has reviewed qualitative research in mindfulness that has contributed to the emerging understanding of mindfulness, how it works and its impact on the lives of the participants of mindfulness based interventions. The final section of this review presents a summary of the literature, highlighting where it has been sparse and explaining which this research aims to address. Finally, it outlines the research questions.

2.6. Developing the research questions

The research questions were designed to address areas where the literature on mindfulness appeared sparse. Here is a summary of the literature of which this research aimed to provide further understanding.

2.6.1. Summary of the literature review

The review focused on literature on understanding mindfulness. It explained how the conceptualisation of mindfulness required aspects of Buddhist understanding to create a more complete account. It described how mindfulness may be developed as a process. In addition, differences between Buddhist and clinical perspectives on the mechanisms of mindfulness were examined and the case for using the Buddhist Psychological Model was presented.

The literature on the efficacy of mindfulness based interventions was reviewed, highlighting some emerging evidence of potential benefits to participants in respect to a range of factors, such as well-being, decreased anxiety and enhanced cognitive skills, including attention. These studies provided some support for the use of mindfulness to develop attentional skills. As this is an aspect where the literature is emerging, the research intended to consider the use of mindfulness for attentional difficulties.

Research on mindfulness with children and adolescents was also reviewed, highlighting the need for research in school settings and in particular for supporting children with attentional difficulties. Most studies in this area had been based in clinical and health care settings and far fewer in educational ones, where children spend many waking hours and which are a key context in which educational psychologists work. Consequently it seemed justifiable to plan to conduct this research in a school setting.

At the time of designing the research, there were structured small group interventions for children with difficulties such as anxiety disorder ((Semple &

Lee, 2008), chronic paediatric pain (Wicksell et al., 2008) and Borderline Personality Disorder ((Woodberry, Roy, Indik, Greco, & Hayes, 2008). There was also an intervention for adolescents and adults with significant attention difficulties, including ADHD (Zylowska et al., 2008). There was, however, no mindfulness-based intervention for children with attentional difficulties designed to be run in a school setting. Consequently, there was a need to design and implement such a programme.

The main area where the literature was sparse was in relation to qualitative research on mindfulness. There appeared to be no published qualitative studies on mindfulness with children and only one on the experiences of an adolescent. Consequently, this research intended to explore the children's experiences of mindfulness, from their perspective of having mild attentional difficulties. Subsequently, the research questions arose from the objective to explore children's experiences of mindfulness. Furthermore, the research would involve designing and implementing a mindfulness-based intervention for children with attentional difficulties in a school setting.

2.6.2. The research questions

This main research question was based on an intention to understand and interpret the lived experiences of the participants in the process of them practicing mindfulness.

Consequently, the central research question was:

1. What are these children's experiences of mindfulness?

In addition, the research intended to explore possible changes in mindfulness traits and the participant's views on learning and applying mindfulness.

To this end, further questions were proposed, namely:

2. How do children's levels of mindfulness change as a result of their participation?

The research intended to provide the participants with skills to practice mindfulness. Therefore, it would therefore be useful to explore any changes in levels of mindfulness.

3. How might the children apply the mindfulness practices that they have learnt?

This question focused on exploring children's views on the value or use of mindfulness in various settings, including the classroom. It intended to elicit information about how participants used the practices.

4. What are children's views on how to teach mindfulness to children?

This question intended to explore participants' views on how to teach mindfulness to children. While the intervention was developed specifically for this research, it would be useful to understand the participants' perceptions of this intervention.

Summary of the chapter

This literature review clarified the concept of mindfulness, critically examined the effects of mindfulness training and discussed research on mindfulness with children and adolescents and attentional difficulties. The scarcity of qualitative research with school-age children was highlighted. Consequently, research questions were designed to explore children's experiences of learning mindfulness. The implementation of the research is discussed next.

Chapter 3: Methodology

Overview of the chapter

This chapter provides an account of the methodology used in the research.

Section 3.1 explains the theoretical and epistemological underpinnings of the research, outlining the decision to adopt critical realism at the methodological level and a transformative approach at the sociological level.

This mixed methods study while predominantly qualitative in design, included a nested quantitative component. Firstly, to explore children's experiences of learning mindfulness, Interpretative Phenomenological Analysis (IPA) was used to analyse information gathered from interviewing the children. During these interviews, the children were prompted to recall their experiences using drawings they had made during their participation in the Mindfulness-Based Attention Training (MBAT) intervention. The Child Acceptance and Mindfulness Measure (CAMP) was used quantitatively and qualitatively to develop an understanding of the children's levels of mindfulness.

Section 3.2 covers the planning stage including ethical considerations, the role of the researcher, the location and context of the research and the process of designing the MBAT intervention.

Section 3.3 describes the data collection stage.

Section 3.4 focuses on the data analysis stage and its use of Interpretative Phenomenological Analysis (IPA) to interpret the findings.

The findings are presented in the next chapter and aspects on children's experiences of mindfulness are further interpreted in the Analysis chapter.

3.1. Epistemological and theoretical framework

An epistemological position is a paradigm or way of looking at the world. The four main epistemological positions are positivism, constructionism, pragmatism and the transformative paradigm (Mertens, 2005). Each has its own view on the nature of reality (ontology), what can be defined as 'knowledge' and the relationship between the knower (the researcher) and the known (what is to be researched) (Creswell, 2003; Mertens, 2005).

Positivism, and its successor postpositivism, adopts a realist stance, positing that there is only one objective reality that can be known, even if this is only within certain probabilities. A straightforward relationship between objects, events and phenomena of the world is assumed (Mertens, 2005). In contrast to post-positivism, is constructionism, which, in its purist form, views reality as inherently socially constructed. As such, lived experiences themselves are essentially linguistic and discursive creations (Eatough & Smith, 2008), shaped by social, political, cultural, ethnic and gender-based assumptions. Furthermore, all individual perspectives of reality are deemed to have equal validity (Mertens, 2005; Willig, 2008).

Other epistemological positions include pragmatism that focuses on problem-solving and therefore considers ontological discussions inconsequential unless specifically relevant to the research in question. The transformative approach is based on a constructionist epistemological position, although its focus is on advocating research that empowers its participants and confronting imbalances of power by respecting and empowering specific social groups that may be experiencing disadvantage (Mertens, 2009).

At the 'lighter' end of the constructionist continuum, there is an epistemological position, critical realism. This perspective allows for the empirical realities of lived experience and acknowledges power imbalances between different points of view. At the methodological level, critical realism provides the coherent epistemological foundation upon which the mixed methodology of this research was based. At the sociological level, a

transformative approach was adopted that was considered compatible with critical realism. This is explained further in a section 3.1.4.

3.1.1. Rationale for using Interpretive Phenomenological Analysis (IPA)

There are many types of qualitative methods and each is appropriate to specific circumstances. A phenomenological approach to data analysis is appropriate when the concern is primarily with lived experience, when there is a call for a detailed exploration of the subjective experience of the participants in regard to a particular phenomenon or experience (Langdrige, 2007; Mertens, 2005). The research aimed to develop an understanding of the participants' experiences of learning mindfulness; thereby a phenomenological approach was required.

IPA focuses on individual meanings and perceptions of experiences (Smith, Flowers, & Larkin, 2009). The reality of the experiences themselves are interpreted at several stages, including initially by the participants themselves in the process of talking, drawing and writing about their experiences, and subsequently during the thematic analysis of the interview transcriptions. Further interpretive analysis generates an in-depth understanding of the findings as the researcher simultaneously empathising with the findings and critiquing them using psychological theory (Smith, Eatough, Breakwell, Hammond, & Fife-Schaw, 2006; Smith et al., 2009). In this way, a narrative of the experiences is created as the product on the IPA process.

In this research, the focus was on generating an understanding of the children's experiences of mindfulness. Therefore the creation of such a narrative was the intended outcome of the research. Consequently, IPA was the most appropriate choice of methodology. Its theoretical underpinnings are now outlined.

3.1.2. Theoretical basis of Interpretive Phenomenological Analysis

Phenomenology is a philosophical approach that was originated by Edmund Husserl, who was mentioned in the literature review chapter. This perspective

involves exploring and understanding lived experience, including what this means to the individual concerned and how this encompasses the embodiment of these experiences within a specific social, cultural context (Shinebourne, 2011). Human experience is examined as an expression of the consciousness of the individual and their engagement with the world (Smith et al., 2006; Smith et al., 2009).

IPA was developed through a synthesis of ideography, hermeneutics and phenomenology (Smith et al., 2009). IPA is ideographic in that it concerns the individual and the particular and focuses upon the detail. In this research, the focus was on eliciting the detail and consequently rich description of the participant's experiences was required. In this way, an ideographic approach that emphasises individuality was adopted, rather than one for making generalisations (Denzin & Lincoln, 2000). Furthermore, to understand these experiences, the uniqueness and complexity of the school setting in which the research was conducted was also taken into account.

Hermeneutics focuses on the meanings given to personal experience. Within IPA, the researcher plays an essential role in interpreting the participant's interpretations of their own experiences. In other words, the intention is to create in-depth levels of interpretation to develop an understanding of the experience under exploration. Furthermore, interpretation is a process of empathising by focusing on the richness of the individual experience itself, and analysis, through the use of theory to question and critique the ideas therein (Shinebourne, 2011; Smith et al., 2009).

The research used IPA to explore the participants' experiences of mindfulness. It developed an in-depth narrative of the 'lived experiences' of the participants, based on the meanings that they ascribed to their own experiences (Ashworth, 2008; Reid, Flowers, & Larkin, 2005). As such, it adopted a less extreme version of constructionism, one that viewed the participants as creative agents in constructing the meanings inherent in their social worlds (Eatough & Smith, 2008).

3.1.3. Critical realism and the research methodology

This research was predominantly qualitatively driven. However, to gain deeper insight, a quantitative measure of mindfulness was used, thereby exploring the possibility that there may be measurable changes in participants' levels of mindfulness. At a theoretical level, there is epistemological friction between the post-positivist ontology underling quantitative methods and the constructionist assumptions upon which qualitative methods are based. In this research, critical realism provided the epistemological consistency required at the theoretical level to encompass the use of mixed methods. Furthermore it was not incompatible with the transformative ideals of the research at the wider, sociological level. (See Section 2.1.4.).

Critical realism, reconceptualises the concept of ontology (Lipscomb, 2008), arguing that the original interpretation of ontology is fallible and that objective reality cannot be accessed directly regardless of whether it is singular (according to the post-positivists) or multiple (as deemed by social constructionists) (Cruickshank, 2004). Essentially, critical realism presents an ontological position in which objective reality is impossible to access directly; reality can only be described rather than known directly, and furthermore, any interpretations of reality are not infallible. This approach distinguishes between the social construction of knowledge (what is known) and that which exists (what might be known). It argues that any methodology, qualitative or quantitative, at best provides a transitive understanding of reality, inevitably imbued with theory and values (Lipscomb, 2008). Consequently, based on this reconceptualisation of the nature of reality, mixed methods can be used; from a critical realist perspective, their differences have been reconciled (Scott, 2007).

In this research, a critical realist position was adopted. In the qualitative aspect of the methodology, the researcher composed a narrative on what the participants experienced and the outcome was a description of that reality, developed through interpretations that had been influenced by the researcher's background as much as that of the participants (Cruickshank,

2003). In other words, the narrative was the construction of the reality that the participants' experienced and that was initially interpreted by both the participants and the researcher during the interviews and subsequently by the researcher during the IPA process.

The quantitative component uses the self report questionnaire to examine participants' levels of mindfulness prior to and after the mindfulness-based intervention. The critical realist viewpoint interprets the quantification of these experiences not as an objective reality, but rather as an interpretation of the reality of their experiences, although in this case the interpretation is conducted through the medium of the questionnaire. Consequently, critical realism was the epistemological position to provide theoretical consistency through reconceptualising qualitative and quantitative methodologies as interpretative processes. At the sociological level, the research encompassed transformative ideals and these are described next.

3.1.4. Transformative aspirations at the sociological level

The transformative approach advocates research that empowers its participants and confronts imbalances of power by respecting and giving voice to specific social groups that may be experiencing disadvantage (Mertens, 2009). The intention of the research was to be transformative in its acknowledgement of the low social status often given to children with SEN (Frederickson & Cline, 2002), such as those with attentional difficulties. The research thereby intended to utilise the MBAT intervention for their empowerment. By engaging in the mindfulness practices, the aim was to support the participants in developing their attentional skills and thereby become better able to concentrate in class and less dependent on others.

Transformative ideals were expressed in the value that the research gave to its participant's views, in respect to understanding the children's experiences of mindfulness and in the intention to use their views to further develop the MBAT intervention. The research was also designed to enable them to better express their views, by providing them with opportunities to draw or write

about their experiences, thereby facilitating their self-expression through this additional medium. Thus, the research had this transformative aspect.

In summary, the epistemological and theoretical framework of the research was a critical realist stance, towards the realist end of the constructionist continuum. It is here that IPA has its theoretical underpinnings and where the qualitative and quantitative methodologies of the research coexist.

Furthermore, at the sociological level, the critical realist approach was compatible with transformative ideals of the research. The next section explains the planning and preparation phase of the research.

3.2. Planning and preparation

The work involved in planning and preparation included consideration of ethical issues, designing for quality assurance, reflecting on the roles of the researcher, clarifying the location and context of the research, preparing the materials, including the MBAT based intervention and interview schedules and selecting the participants. These aspects of the planning and preparation stage are detailed below.

3.2.1. Ethical considerations

Ethics aspects need to be integrated into research at an early stage, during planning and implementation (Mertens, 2005). In this research, ethical consideration and risk assessment was designed in accordance with the Code of Ethics and Conduct followed by educational psychologists (BPS, 2006) and the University of East London's Code of Good Practice in Research (UEL, 2004). This guidance was the most up-to-date at the time of submitting the research proposal. In this way, the research upheld the guidance on the principles of respect, competence, responsibility and integrity (BPS, 2009).

Respect

Respect for the research participants is shown in relation to consent, privacy and confidentiality. Participants and their parents were given sufficient information about the research to give informed consent. (See Appendix E).

They were informed that they had the right to withdraw at any time during the data collection phase and that all data would be made anonymous and kept safe from accidental disclosure. Furthermore, confidentiality would be upheld unless someone was being hurt or harmed, in which case school staff would be informed in consultation with the participant. However, the necessity for this did not arise.

Competency

To ensure competence to design and teach a mindfulness course, the guidance on good practice from the UK network of mindfulness-based teacher trainers (CMRP, 2010) was addressed and this included undertaking training in teaching mindfulness to children (Appendix A).

Responsibility

Responsibility included taking care to eliminate potential risks, especially those pertaining to psychological well-being and physical health. The research participants were provided with a clear outline of expectations at the start of the initial interview, so that they were able to give informed consent. During the mindfulness course, the well-being of the participants was checked during each session. If there was any discomfort or misconceptions, the situation could be remedied by asking the child what help was needed and informing a member of staff.

Integrity

Integrity is the fourth ethical consideration. No deception was intended at any stage and all involved were provided with sufficient information to understand the purpose and aims of the research. The intention throughout was to act with integrity, honesty and accuracy, including in regard to analyzing the data and conveying the research findings. Any potential limitations of the research were acknowledged so that any unrealistic expectations were avoided.

In these ways, the research was designed on ethical principles. An application was made to the Ethics Committee of the University of East London (see Appendix B). The next level of preparation was to ensure the quality of the research.

3.2.2. Quality assurance

Planning included ensuring that the research was conducted with a high level of quality. Quality qualitative research may be judged according to the extent that it meets certain criteria, namely credibility, transferability, dependability and confirmability (Mertens, 2005). How quality outcomes were planned for is outlined next. The extent to which the research was successful in meeting these criteria is discussed in the discussion chapter.

Credibility

Credibility, or authenticity, is similar to validity in quantitative research, although the approach is different (Cho & Trent, 2006). To be credible, conclusions need to be drawn from several sources (triangulation). The research intended to portray the children's experiences of mindfulness (as interpreted by the researcher) in an authentic, fair and accurate way. To ensure this, the research drew upon information from a number of sources, such as teacher interviews, notes made during the intervention and children's drawings of their experiences of mindfulness. The participants also had the opportunity to explain the meaning of their drawings, thereby ensuring that further interpretation by the researcher would have greater accuracy.

Credibility was also improved by ensuring that the data provided by the participants was of a sufficiently high level of detail to enable in-depth analysis. The quality of the final analysis depended upon the ability of the participants to adequately express their thoughts and experiences. The research facilitated the participants' self-expression by providing them with the opportunity to express themselves through drawings, not just verbally. Some children, especially those with SEN, find it challenging to express themselves verbally and consequently, benefit from opportunities to utilise alternative modalities of self-expression, such as creative activities (Tangen, 2008).

During the course, the participants were supported in feeling safe and secure to draw or write about their experiences. They were provided with individual workstations, where they could record their experiences in private, without others seeing their work unless they chose this. During the final interview, to

enrich the accounts of their experiences of mindfulness, these drawings were used as prompts. Thus, the research enhanced the authenticity of the children's accounts and the consequent accuracy of the findings.

To further ensure authenticity of the findings, the views of the participants were gathered over a sustained period of time. Although most information was gathered at the final interviews, some was also obtained during the initial interviews and the MBAT intervention which took place twice a week over 5 weeks. During this time, a rapport developed between the participants and researcher. The intention was to support and encourage the participants to become better able to reveal their views openly and accurately, thereby increasing the credibility of their accounts.

Transferability

Transferability parallels external validity in quantitative research and represents the extent to which the findings and their interpretation may be theoretically transferred to other contexts (Smith et al., 2009). It is enhanced when sufficient detail is provided for the reader to make links between their own context and the analysis, including the researcher's background and the related literature. In this research, transferability was enhanced by providing detailed information about the educational setting in which the research was conducted (See section 3.2.4), the participants' attentional difficulties (See section 3.2.7) and the intervention in which the mindfulness practices were learnt (Section 3.3.4). The aim was to provide the reader with sufficient information to make the necessary comparisons, thereby enhancing the theoretical transferability of the research.

Dependability

It is essential for those utilising the outcomes of research to know that they are trustworthy. One way to enable the assessment of dependability is to maintain an audit, a detailed account of how the data was processed and interpreted, so that it could be referred to at a later stage. In this research, detailed information about the process of implementation, data collection and analysis was tracked using recordings, a reflection diary (See Appendix I).

Through these records, the stages of the research process were monitored step-by-step, such that anyone needed to check this process would be able to do so and have a sense that the research findings were dependable.

Confirmability

The criterion of confirmability requires that the logic used to interpret the data is made explicit. Records of events that had been attended, such as supervision meetings, mindfulness events and IPA study group meetings, were kept. This enabled tracking of a range of processes, such as how the analysis phase was conducted or the data interpreted. By knowing how, when and why relevant decisions about the research were made, the research process had the quality of confirmability.

The plan therefore included to ensure quality in terms of credibility, transferability, dependability and confirmability. In designing for quality, the role of the researcher was also essential and this aspect is examined next.

3.2.3. Multiple role of the practitioner researcher

The researcher influences and shapes the research process both as a person and as a theorist (Willig, 2008). Consequently, no research can be free from bias. However, efforts can be taken to address and minimise the potential of this to occur. The first step in this process is acknowledging the range of ways in which the research interacts with the participants, such as being a 'friend', 'leader' or 'supervisor', according to the context, and if children are involved, the age of the child (Mertens, 2005). To minimise bias, the researcher needs to be aware of these roles, reflect on them, critically inspect the research process and make the roles transparent (Hiles & Cermák, 2008).

Overall, in this project, the researcher adopted multiple roles:

1. Educational psychologist
2. Designer of the intervention
3. Implementer/ teacher of the intervention
4. Data collector/ interpreter of the data

Each of these roles was examined critically through a consideration of the advantages of adopting them in the research and the potential for bias that consequently arose and how this was minimised in order to maintain the quality of the research. These factors were weighed up in order to clarify the rationale and justification for adopting these multiple roles.

The first part of this multiple role was that of educational psychologist. Educational psychologists are in a position of power within the schools in which they work. This is likely to have an influence on staff and pupil perceptions. Prior to the study, the researcher was known to the staff at the school in this role. This provided an advantage in that there was knowledge of the staff and the systems for implementing the intervention in this setting.

Nevertheless, to minimise the potential influence of the teachers on the participant's views, care was taken not to speak to staff about the intervention until after the final interviews. As it happened, the participants did not appear to be aware of the researcher's other role in the school. This was probably due to the school being relatively large or just that they may not have paid much attention to visitors to the school. Consequently, their views appeared to be free from the potential bias that this could have induced. If there had been any indication of such an influence on their views, this would have been discussed with them and taken into account in the analysis and discussion of those aspects of the findings.

It is also possible that the participants had seen the researcher around the school, and this would have made the researcher appear somewhat familiar to them. While this may have helped to put them at their ease, and more willing to engage in the intervention and interviews, it may have prompted a sense of loyalty towards the school that would have minimised the likelihood of them expressing any negative criticism. As this would have affected the credibility of the findings, care was taken to encourage the participants to give their views whether positive or negative. This was done by explaining that all their views were valued and useful in future development of the intervention itself.

The second part of this role was as the designer of the intervention programme. At the time of designing the research, there was no mindfulness-based intervention for children with attentional difficulties designed to be run in a school setting (See Section 2.6.1 Summary of the literature review) and consequently, such a programme was designed by the researcher (See Section 3.2.5. Designing the Mindfulness Based Attention Training Intervention).

The advantage of doing this was that an intervention was created that was tailored to the needs of pupils in a school setting. One disadvantage of taking on this designer role was that it took time and the intervention was run for the first time as part of the research. Nevertheless, through additional training in teaching mindfulness to children, discussion with and work-shadowing an experienced teacher of mindfulness in schools and piloting a few sessions of the intervention itself, a tailor-made intervention for the purposes of the research was developed.

Another issue was that, having designed the intervention, the researcher could potentially be biased towards wanting the intervention to produce a positive effect. This may have been more of an issue had the focus of the research been on evaluation. However, this research focused on exploring participant experiences. Consequently, the teaching of the intervention focused upon enabling the participants to have an experience of the mindfulness practices as authentically as possible.

Thirdly, the researcher also took on the role of the person who implemented the intervention. One advantage of this was that the researcher, as the teacher of the intervention was more likely to have expressed enthusiasm during the programme and this may have had the positive effect of cultivating the participants' motivation for engaging in the mindfulness practices.

Another important advantage arose from having had designed the intervention. The researcher had an in-depth understanding of the underlying theory and rationale for the activities and this enabled the course content to

be differentiated to meet individual needs of the participants themselves. Thus, there was greater possibility for teaching to be flexible, while maintaining the integrity of the intervention. In this way, the mindfulness-based practices were made more accessible to the participants. For example, by being aware of the need for the key mindfulness practices (mindful movement, sitting mindfulness and the body scan practice) the researcher, as implementer, ensured that these activities were covered during each session as far as possible. This enabled the participants to practice mindfulness in a genuinely correct way.

The research was set in a school context and the children therefore were required to follow school rules and behave accordingly in the group. Consequently, in this context, it is possible that the children may have ascribed the researcher the authority of a teacher. In accepting this, the researcher used this as an opportunity to role-model the qualities of mindful attention. This included reframing any behaviour that presented during the sessions, challenging or not, as an opportunity for participants to observe each other with mindful awareness (Hooker & Fodor, 2008). Furthermore, the researcher also had a role in 'embodying mindfulness', paying attention in a kindly way and also maintaining a personal practice (Hooker & Fodor, 2008).

However, there was a potential for bias in that the researcher could have influenced what the participants drew or wrote about when it came to them expressing their experiences. To minimise this possibility and indeed to guard against it, care was taken not to give the participants any guidance or instructions regarding the content of what they drew or wrote about. While they were instructed to express their experiences as best as they could, they were also allocated space away from each other so that they would not be influenced by others. In this way, care was taken to ensure that the researcher's potential to bias the findings was minimised. This thereby enhanced the authenticity of the children's accounts and contributed to the reliability of the findings.

The fourth part of this multiple role was that the researcher also conducted the interviews with the participants. In the interviews, the researcher adopted a friendly role, in which a minimal level of authority over the child was assumed. The focus was to develop positive interactions in order to facilitate the participants in feeling comfortable to ask any questions they had and reveal their experiences of participating in the intervention openly and honestly. The key advantage of this was that the researcher was familiar with the issues about which the participants spoke. Furthermore, the participants appeared to be at ease with the researcher.

On the other hand, even though the research was familiar to the participants, it is possible that they may have been more confident to express views that they thought would meet with approval. Therefore, in order to interview the participants skilfully, the interviewer needed to be skilled in knowing when to be more active, prompting and facilitating further disclosure as opposed to being passive and leaving any interpretation for the analysis phase (Brocki & Wearden, 2006). In this research, particularly as the participants tended to speak little, the tendency was to use neutral prompting to encourage them to elaborate on their answers thereby enabling them to provide a fuller picture of their experiences. Consequently, in order to minimise bias on their responses, care was taken to ask open-ended questions so as not to lead the participants' thinking down a particular line, especially one that may possibly relate to any preconceptions about what the researcher may want.

Another disadvantage was potential bias in the interpretation of the interview transcripts. Researchers are key in the interpretation of the findings (Pringle, Hendry, & McLafferty, 2011) and consequently, from the first encounter with the interview transcripts to the final analysis, care was taken to be self-aware, observe and note down any interpretations as they occurred such that they be made explicit. This is a key part of the process of IPA, during which the researcher, while transcribing the interviews, keeps the content of the interviews authentic by being aware of and mentally putting aside personal preconceptions (Smith et al., 2009).

During the analysis phase, the researcher applied skills including those for interpreting the participants accounts, by both empathising with them and yet also critiquing them, using an understanding of the relevant theory (Brocki & Wearden, 2006). Consequently, a “dance” took place between bracketing presumptions and making the most of them as inspiration for the analysis (Finlay, 2008). In the research, any ideas that came to mind were recorded as comments on the transcripts, in order to support the process of putting them aside and yet having them available at a later stage. The researcher used skills for interviewing the participants, interpreting the interviews and analysing subsequent findings, both empathetically and critically (Brocki & Wearden, 2006).

In summary, the multiple roles of the researcher had clear advantages including that the researcher had knowledge of the school systems, an in-depth understanding of the intervention itself, the ability to adapt the course materials to the needs of the individual participants and familiarity with and knowledge of the participants and the vocabulary they used in describing their experiences.

However, there were also other disadvantages including the possibility that the participants may have associated the researcher with the ethos and values of the school itself, the researcher would have developed an interest in the intervention producing ‘results’ and consequently may have influenced the content of what children expressed about their experiences.

In the light of this, the researcher was careful to minimise the potential of these multiple roles to influence the findings, by ensuring firstly that the participants were encouraged to give their views whether positive or negative. Furthermore, the teaching of the intervention focused upon the authenticity of the experience of mindfulness rather than on any potential outcome. In addition, when it came to drawing writing about their experiences, conditions were created that were conducive to the participants being able to express themselves honestly, openly and with minimal influence from the researcher or other participants. Also, in the interpretation of the content of the

interviews, care was taken to acknowledge interpretations as they arose in this process, for reference during the interpretive phenomenological analysis. Consequently, on balance, therefore, the advantages of adopting these multiple roles outweighed the potential disadvantages. The implications for these multiple roles of the researcher on the findings are further critiqued in the discussion chapter (Section 6.3. Evaluation of the methodology).

Following this section on the multiple role of the researcher and how quality in the research was maximised, the next section provides details of the context and location in which roles were adopted.

3.2.4. Context and location of the research

For pragmatic reasons, the research took place within a community in the locality in which I have worked as an educational psychologist, since April 2008. In this school, relationships with school staff, especially the Special Educational Needs Coordinator (SENCO), were well established. Consideration was given to other schools, however, this school was chosen as there was familiarity with its staff and particular systems. This greatly facilitated the process of setting up the research.

This primary school was based in inner London and was described in its OFSTED report as being a good school. It was twice the size of an average primary school and with a greater than average proportion of pupils known to be eligible for free school meals. Most of the pupils were from minority ethnic groups and no one ethnic group dominates. Furthermore, the proportion of pupils whose language was not English was much higher than average. The school had a significantly higher proportion of pupils with statements of Special Educational Needs. Furthermore it held a number of awards including recognition of its work to promote healthy lifestyles.

The school setting provided access to a room with a carpeted floor, which was needed for the mindfulness movement sessions and the bodyscan practice, which included lying on the floor. Due to demands on this resource, the only

times it was available was Monday and Friday mornings. Fortunately this fitted in with the plan which was to run the mindfulness sessions twice a week with sessions spaced as evenly apart as possible. Having provided detailed information about the context and location of the research, the next step is to outline how the mindfulness course for attentional skills was designed.

3.2.5. Designing the Mindfulness-based Attention Training intervention

In designing the Mindfulness-based Attention Training (MBAT) intervention, the primary intention was to provide opportunities for the participants to experience and practice skills to develop mindful awareness. As described in the Literature Review chapter, mindfulness was defined as a quality of awareness that arose from paying attention to events in the immediate present with an accepting and non-judgemental attitude. The intervention created opportunities for repeatedly focusing the attention onto 'anchors' in the present moment, such as body sensations, the breath, thoughts and sounds. In doing so, there were potential moments for participants to become aware of their attention and thus cultivate the skills needed to control it.

The first step was to develop a version of the intervention to be piloted before the actual MBAT intervention was implemented. This involved identifying and analysing the structure and content of mindfulness courses that had been designed for working with children or to address attentional difficulties. Three such courses were found. Two had been designed for children and the third was used to address severe attentional difficulties (ADHD) in adults and adolescents.

The Mindfulness-based Cognitive Therapy for children (MBCT-C) programme was a 12 session group intervention developed to address children's anxiety disorders, using aspects of psychotherapy and mindfulness (Semple & Lee, 2008). Its primary intention was to alter participants' beliefs about their thoughts and attitudes that contributed to their anxiety. It was adapted from the adult MBCT program (Segal et al., 2002), to make it suitable for children

and their developing skills in attention, reasoning and verbal fluency (Semple, Lee, Rosa, & Miller, 2010).

The Mindfulness-based Stress Reduction course for children (MBSR-C) is an eight-week program designed to offer children and experience of a 'still quiet place' within themselves, from which to respond rather than react to everyday events (Saltzman & Goldin, 2008). This course was adapted from the adult MBSR course (Kabat-Zinn, 2005) by incorporating age-appropriate language and making it fun and engaging for children (Saltzman & Goldin, 2008).

The third course that was used was the Mindful Awareness Practices for Attention Deficit Hyperactivity Disorder (MAPs for ADHD). This is an 8-week course for those struggling with significant attentional difficulties. It includes teaching about attention itself, explaining how mental training can be used to alter brain structure and function through a sustained regular practice of mindfulness (Zylowska et al., 2009). It also inspired the idea to include content specifically on the development of attention and concentration.

Other sources of information included work shadowing a teacher who worked in schools teaching mindfulness (Appendix C). This experience also contributed to resource development, including a transcript of short sitting mindfulness practice (Appendix D).

The next step in developing the MBAT intervention was to compare the key features of the two mindfulness courses for children and the one for attentional difficulties (Appendix C). This included comparing the frequency and length of sessions and extent to which parents had been involved. The research intervention was designed to be run twice weekly rather than weekly, so that the participants were more likely to remember what they had learnt from one session to the next. Each session was no more than 60 minutes long in order to fit in the class timetable. The plan included presenting the intervention at a staff meeting to inform and involve school staff and parents. In this way, the parameters of the mindfulness-based intervention were outlined.

Then, the content of these three courses was analysed in depth, mapping the courses together session by session, examining the key objectives of each session and clarifying any threads or commonalities between each course session by session. A decision was made about which aspects to include or adapt. For instance, as the first session took place in a small space where it was not possible to lie down, it was not possible to introduce the body scan. Instead, the first session focused on the three-minute breathing space with an emphasis on body sensations and sounds. In addition, while mindful eating is usually introduced in the first session, this was done in the third session, this enabling the first two sessions to focus on clarifying that the participants could engage in the practices and establishing group rules. Overall, a clear progression in the mindfulness practices, from initially focusing on mindfulness of body, then sounds, followed by feelings and thoughts. This resulted in an outline of the key aims of each session of the MBAT intervention, which has also been included in Appendix C.

The final stage was to outline the detail of each session within this planned version of the MBAT intervention (see Appendix C). Care was taken to ensure that each session dedicated a substantial proportion of the available time to key or 'formal' mindfulness practices such as mindful movement, sitting mindfulness and the bodyscan (Baer, 2006; Kabat-Zinn, 2005). Mindful movement is a general term for practices that involve bringing awareness to the detailed experience of movement, such as when walking or doing yoga postures (Baer & Krietemeyer, 2006; Kabat-Zinn, 2005). Sitting mindfulness involved adopting an upright and comfortable sitting posture in which to practice mindfulness (Kabat-Zinn, 2005). In the body scan, the body is systematically scanned with the attention, such that mindful awareness is brought to different regions of the body (Kabat-Zinn, 2005; Segal et al., 2002).

Also in each session, time was allocated to review the previous session, teach about an aspect of mindfulness and for participants to write or draw about their experiences.

The first session was incorporated into the initial interview. In this way it would be possible to check that each participant had sufficient skills to be guided through a brief mindfulness practice, before joining the group in the later nine sessions. At this stage, a range of resources had also been developed for the intervention (See Appendix D).

This plan for the 10-session mindfulness-based intervention for attentional skills was initially piloted and this is described further in Section 3.4.1. In parallel to developing the mindfulness-based intervention, the interview schedule was also developed and this is described next.

3.2.6. Preparation for the interviews

A good interview is essential to IPA analysis, enabling the interviewer to engage deeply with the participants, listen attentively and probe sufficiently deeply to gain an understanding of the participants' experiences (Smith et al., 2009). The interview schedule was designed to encourage participants to talk in-depth about their experiences or understanding of mindfulness. It also helped to provide a sequence for the interview, to ensure all aspects were covered.

The main part of preparing for the interviews was to develop the interview schedule. In this process, questions were prepared that were open and expansive, encouraging participants to recount their experiences as easily as possible. If needed, prompts and probes were used. Leading questions were avoided so that the participants' responses were as authentic as possible.

Initially, a draft interview was prepared, including questions for the initial interview, during the mindfulness-based intervention and the final interview (See Appendix G). This was presented at an IPA research group for feedback. Consequently, the schedule was significantly simplified from having several detailed questions to including a few open-ended questions. Later, this revised schedule was developed further following a meeting with Pnina Shinebourne, a researcher who had explored the use of participant's

drawings during the data gathering phase of research with an IPA approach (Shinebourne & Smith, 2010b). As this amendment of the interview schedule happened after Ethics Approval had been obtained, the Ethics Committee was informed of this change (See Appendix B) and approval for this was subsequently obtained.

Consequently, the interview schedule used in the interviews included questions inviting the participants to describe their drawings. The final version of the interview schedule that was used for the initial and final interviews has been described in more detail in Appendix H. How these drawings were used in IPA is discussed next.

3.2.7. The use of drawings in IPA

Shinebourne and Smith (2010b) conducted a study using IPA that focused on the experiences of participants who had gone through the process of recovery from addiction. In their research, the participants were asked to bring artwork made during the recovery process itself and encouraged to draw during the interview itself. Consequently they used participant's drawings that had been created prior to the interview and during the interview itself. Using semi-structured interviews, the participants were asked about their experiences of the recovery process, with reference to their drawings.

Shinebourne and Smith argue that this study demonstrates how the use of drawings during the interview process facilitates an understanding of the participant experiences. This is due to the additional medium of drawings enabling the expression of meaning that is not possible when only verbal accounts all visual material is used alone (Shinebourne & Smith, 2009). Furthermore, the images that are created not only support the participants by prompting their memories of their experiences, but they also facilitate the participants themselves in understanding and making sense of their own experiences, through the process of reflecting and talking about the images themselves (Radley & Taylor, 2003).

Einarsdottir, Dockett and Perry (2009) have also used drawings as part of data collection in research that use children as participants. In this study, the use of drawings was argued to have provided a context in which children had additional control over the nature of their engagement in the activity in which the data was created (Einarsdottir, Dockett, & Perry, 2009).

Furthermore, the child participants indicated a preference for communicating their views through a combination of verbal and non-verbal means. This indicated that drawing may have been meaningful to them as a mode of communication. In addition to this, drawings could also provide a context in which the children had control over the nature of their engagement and were therefore more likely to relax and engage in the process of expressing their experiences. Thus, authenticity is enhanced as the participants are better engaged through the use of methods of communication that are interesting and meaningful to them (Dockett & Perry, 2007).

Consequently, this research was designed to use drawings as way of encouraging and facilitating the participants in expressing their experiences of mindfulness through a combination of drawing, writing and speaking. The participants were provided with opportunities to draw or write about their experiences during the initial interview and during the intervention. Subsequently, at the final interview, these drawings were used to facilitate the children's recollection and expression of their experiences of mindfulness, thereby enabling richer content to be gathered which would lend itself more fruitfully to the subsequent interpretive phenomenological analysis.

For more information on the process followed at the final interviews, including how the drawings were used, see Section 3.3.5. How the pictures were interpreted during the analysis phase was described later in this chapter (see Section 3.4.1 The process of using IPA, Step 4: Developing the emergent themes and Step 5: Deepening the analysis). The final step in planning and preparation, the process of selecting the participants, is discussed next.

3.2.8. Selection of the participants

The sampling approach for qualitative studies, and particularly for the requirements of IPA, needs to be purposeful and homogenous (Smith et al., 2009). Purposeful homogeneity in this context means making the group of participants as uniform as possible according to relevant social or theoretical factors (Smith et al., 2009). In the research, the intention was to select participants who had been identified by their class teachers as having attentional difficulties. In addition, they would need to have sufficiently well developed social skills to be able to participate in a small group. Furthermore, by the time of the final interviews, the group homogeneity would have increased considerably, since all the participants would have completed the MBAT intervention by that stage.

Another requirement was that the participants would have sufficiently developed language skills to be able to provide the information-rich data required for the research (Mertens, 2005). The intention was to select participants from the later years of primary school education. Older children would have had time and opportunities to develop their language skills. However, those in their final year of primary school, in Year 6, were likely to have been required to focus upon preparing for their end of year examinations. Consequently, in this research, participants were selected from children in Year 5 (nine and ten year olds). While still being at primary school, they were older than those in other classes and therefore more likely to have sufficiently developed language skills. They were also not yet focused upon examinations.

Another focus of the research was in getting sufficient numbers for the research. Ideally, there would be three for the pilot and between five and seven for the MBAT intervention and there would be a mix of girls and boys. Consequently 10 participants were needed in all. The identification of possible participants was conducted in consultation with the school's Special Educational Needs Coordinator (SENCo), the person responsible for coordinating and managing the special educational provision in the school

itself. Then, the SENCo discussed the research with the Year 5 class teachers, and asked them to provide her with a list of names of pupil who they described as having difficulties with attention. Out of this list, the SENCo identified appropriate participants and letters for parental consent were sent home (Appendix E).

How the participants had been identified was discussed with the class teachers. This was done after the intervention to minimise the potential of the researcher (when implementing the intervention) to be biased towards any particular individual while running the intervention. Overall, the participants were reported to have difficulties with being able to sustain their attention on tasks. They were described as being easily distracted or distracting others, tending to lose focus easily and daydreaming, struggling to complete work. One participant was described as being unmotivated and another to be lacking in self-confidence. Overall, they all were considered to have difficulties with attention. Through this process, three participants were selected for the pilot and seven for the intervention.

3.8.9. Selection of the measure of mindfulness

The first step was to find an appropriate measure of mindfulness for the participants as the development of such measures for children was at early stages (Coyne, Cheron, & Ehrenreich, 2008). In a review of the literature, only one self-report questionnaire, the Child Acceptance and Mindfulness Measure (CAMM) (see Appendix F), was found to be suitable for those aged 9 to 18 years (Greco & Baer, 2006). This measure focused on assessing skills that were compatible with the definition of mindfulness adopted in the research. This version of the CAMM has since been further developed and validated (Greco et al., 2011) using a larger sample of children and adolescents. In this research, the participants completed the original CAMM during the initial and final interviews. They were encouraged to elaborate on their answers to make more explicit their reasoning and the meanings behind their responses. How this was analysed is explained in section 3.4.1.

3.3. Data gathering stage

This section describes the stages involved in data collection: conducting the pilot study, the final interviews and implementing the intervention.

3.3.1. The pilot

A pilot study is essentially is a small-scale version of the real thing (Robson, 2002). This was done to check the feasibility of the interview questions and the first two sessions of the mindfulness-based intervention. It was an opportunity to learn skills in practising teaching mindfulness to this age group before the actual research mindfulness-based intervention was conducted, so that the focus was on gathering the data than testing the materials.

The first step was to obtain parental consent for the participants. Parental consent had been obtained for three participants. However, on the day arranged for the initial interviews, only two participants were at school. Even though this situation was less than ideal, it seemed that the pilot would still be effective and it was commenced. The impact of this was taken into consideration when evaluating the pilot.

At the initial interview, the course was explained to the participants and the Child Acceptance and Mindfulness Measure (CAMM) (see Appendix F) was completed. The rationale for the CAMM is explained later in this chapter. Next, the participants were guided through a brief mindfulness practice and invited to draw or write about their experiences. Later that week, they participated in two sessions from the MBAT intervention and were interviewed again, using their drawings as prompts.

The implications of the pilot were considered and were amendments made to the MBAT intervention for the research (Appendix C). The main changes were to include ground rules and ensure that carpeted floors were available, so that participants could feel comfortable sitting or lying down on the floor. The next step was to conduct the interviews and run the research intervention.

Reflexive note: The pilot

The reflective diary provided insight into my experiences of the pilot and its implications for developing the MBAT intervention. On the day of the initial interviews, only two participants were available due to delays with getting the consent forms completed. During the interview itself, one of the participants was not confident with drawing and seemed a bit nervous. Furthermore, I realised a need to be more organised with the paperwork in order for the interview process to flow smoothly. Another discovery occurred during the pilot sessions, when ground rules were needed to be made explicit to enable the participants to focus better in the group. Furthermore, during the second interview, the participants were together and shared ideas, so I decided that all drawing and writing needed to be done without the participants being able to see each other's work to thereby prevent any copying of each other's ideas.

3.3.2. The initial interviews

The first step in the initial interview involved explaining the research to the potential participants and to discuss the consent form with them. If they agreed to give their consent to participate, it needed to be clear that this consent could be withdrawn by them at any time up until the data collection had been completed. Once informed consent had been agreed, the participant was guided through the CAMM questionnaire. Then, using the schedule for the initial interview, the participant was asked about any background knowledge to mindfulness and reasons for wanting to participate on the course. An interview schedule was followed (Appendix H). The interview continued with the first session of the ten sessions of the MBAT intervention. This is described next.

Reflexive note: Finding available space in the school

Although a suitable place for the interviews had been available during the pilot, this was not so during the actual interviews. The only space available was in an open plan area in which there a literacy intervention was being conducted. Nevertheless, despite this, the participants appeared able to engage with the sitting mindfulness practice. In general, they spoke little.

3.3.3. Implementing the MBAT intervention

The first session of the mindfulness-based intervention took place as part of the initial interview. Following the completion of the interview questions, the participant was guided through a short sitting mindfulness practice, known as the “3-minute breathing space”, a practice to facilitate being focused and cultivating awareness on events in the present moment (Appendix D). After this, the participant was asked to draw, write and talk about his or her experiences. Most children opted to draw and then to talk about their drawings and experiences in general. At the end of this first session, any further questions were answered before the participant returned to class.

The rest of the nine sessions of the mindfulness program were completed as a whole group, twice a week over 5 weeks. Each session was 50 minutes long and was recorded from start to finish, except for the second session when recording began after 20 minutes, due to forgetting to switch on the recorder. However, details of the session’s beginning were noted later. The participants were collected from their class at 9:30am and at 10:30am, when the session ended, they went to break.

Each session began by reviewing any experiences of mindfulness that the participants had noticed since the last session and considering their emerging reasons for engaging in the practices. Then there was a short teaching on an aspect of attention skills training. The rest of the session was experiential and participants were guided through a series of mindful movement exercises, a sitting mindfulness practice and a body scan (See Appendix C).

After this, the participants were given the opportunity to draw or write about their experiences, working at individual workstations so that their ideas would be as original as possible. While the main intention of each session was to experience the mindfulness practices, the sessions also aimed to allow time to draw or write about these experiences for reference at the final interview.

The children drew about their experiences in all of the sessions except two of them (See Appendix D). Firstly, for most of the third session, half of the group was away due to being on a school trip and consequently were unable to participate fully in the mindfulness practices. Due to this difference in their access to the session, it was decided not to do drawings for the final interviews, but instead, they drew stickers to remind them to practice, and which they took home. Secondly, in the final session, no drawings were done because the time available was unexpectedly reduced, due to an event in which the whole school was involved. The time was used to bring closure and discuss any questions they had and do one final practice together.

In some sessions, if there was time, a short group closing activity was held, in which participants shared their views and were encouraged to practice before the next session. Following each session, once the children had left, any personal reflections on what had happened were recorded.

Towards the end of the mindfulness-based intervention, both class teachers were interviewed, to find out about their views on the course and to obtain some general information on the participants themselves. This data was included in the reflection diary and later used to contextualise the participants' backgrounds and reasons why they had been included in the research.

Reflexive note: Recording the sessions

I recorded my reflections before and after nearly every session in the intervention, in order to capture my related thoughts and feelings. Each recording gave a sense of my intentions for each session, impressions of that session and ideas for preparation for the next session.

3.3.4. Description of the MBAT intervention

The implemented version of the MBAT intervention used feedback from the pilot. It aimed to adhering to the basic structure and content, however a few adjustments were made to adapt to the group's needs. The implemented MBAT intervention is now described, with information from the reflection diary.

Session 1 - Thursday 25.2.10 and Friday 26.2.10

During this session, consent was obtained from the participants. The concept of mindfulness was introduced to them and the CAMM questionnaire was completed. The participants were then guided through their first sitting practice, a “Three Minutes Breathing Space” that had been adapted for children (see Appendix D for the script for the “3 Minute Breathing Space”). Finally, they spoke, drew or wrote about what they had experienced.

Session 2 – Monday 1.3.10

Initially, the room was set up with workstations so that the participants would be doing their drawings individually, but sharing the colouring pens in pairs. This session started with an explanation that mindfulness was firstly about exercising our abilities to refocus our attention on anything that we choose to focus upon, and secondly about working with our minds with gentleness and kindness. The rules of the group, adapted from another mindfulness-based intervention for children (Semple & Lee, 2008), were explained (see Appendix D for the “Five Mindful Rules” for the group sessions). The participants were also reminded that there would be nine sessions altogether, lasting about 50 minutes each. Furthermore, each session would involve a body scan, sitting mindfulness and then an opportunity to draw, talk or write about experiences.

The participants were asked what they thought mindfulness was about and were led through discussion about why it might be useful to learn. Then, they were guided through a breathing practice, starting with an explanation about a comfortable, upright posture for sitting and including encouragement to focus on observing the movements of the breath. Next, a moving mindfulness practice was covered, including some yoga postures. The last mindfulness exercises was one in which the participants were led through a body scan lasting 3 1/2 minutes. After this, the participants were guided to their workstations and encourage to true draw or write about their experiences. Finally, the session ended with a few minutes of feedback. Overall, this session focused on practices related to mindfulness of the body.

Session 3 – Friday 5.3.10

At this session, two children (later named Barbara and Eric) were late in returning back from a school trip. The session took place in another room, as the room previously used was busy. The session started with an introduction to another aspect of mindfulness, that it includes observation, with kindly awareness and metaphor of the blue sky, with the clouds as thoughts passing through it was described to them.

Mindful movement practices were covered next and at this stage, the rest of the group arrived. Next was an exercise in mindful eating, in which the children were given a raisin each and guided through eating it with detailed mindful awareness (See Appendix D for the script for eating mindfully). After this, a sitting mindfulness practice was completed, with encouragement to focus on the breathing and, sounds and thoughts that may be rising. During this session there was not sufficient time for completing the body scan practice, so this was omitted.

Due to the limited space in this room, the children needed to draw and write together and would have been able to see each other's drawings.

Furthermore, not all the participants had been present for the whole of the session. So instead of drawing about their experiences, they were invited to draw a sticker to take home.

Session 4 – Monday 8.3.10

This session took place in the same room as the second session had, which was a larger, carpeted space. Two participants (Fiona, due to illness and Eric, due to cycle training) were absent. The session started with a consideration of different kinds of concentration. A visual aid, of sand and water, was used to explain how being still allows our minds (the sand) to settle (sink to the bottom of the water). An auditory aid, the sound of the singing bowl, was used to explain how the attention needs something upon which to focus. The participants were asked to describe their experiences of mindfulness, in their own words. Rating scale was drawn on the flip chart, where 1 represented levels of mindfulness on “bad day” and 10 was levels on

an “excellent day”. They were asked to describe what “bad day” and “excellent day” meant to them in terms of their own abilities to focus and concentrate.

Following this, there was a short session of mindfulness movement, followed by a body scan practice, with encouragement to repeatedly return the awareness to the part of the body they wanted to focus on and to mentally encourage themselves as they did this. Next, with encouragement to move as silently as possible, they changed to being seated in their chairs for the sitting mindfulness practice (the 3 Minute Breathing Space practice). After time to draw or write about their experiences, the session ended.

Session 5 – Friday 12.3.10

In this session, two participants were absent (Eric due to illness and Adam had opted not to attend). The session started with an introduction to the metaphor of attention being like a spotlight in that it can be made wide or narrow and bright or dim and can be focused on different things. The first mindfulness practice was noticing physical sensations in the body and inviting the participants to take their “spotlight” of attention to these.

One participant (Barbara) found it particularly difficult to focus inwardly and was encouraged to verbally name the things in the room to which her attention was drawn. Next she was encouraged to widen the spotlight on them to narrow it. The other participants were encouraged to do the same and further instructions on the quality of attention, to imbue it with a sense of curiosity, were given.

The session continued with an exercise on cultivating a kindly awareness, by inviting the participants to bring to mind someone or something that they have kindly feelings towards, for example a friend or a pet (see Appendix D for the practice for developing kindness and self-compassion). Next, the sitting mindfulness practice was done, this time, including encouragement to sustain the quality of kindness in their attention. Mindful movement practices and

the body scan were covered, both with encouragement to cultivate kindness as a quality of attention.

Finally, there was a short sitting mindfulness practice. To further progress in this practice, they were invited to focus upon the rhythm of their breathing, inhaling to a count of 7 and exhaling to a count of 11, a practice called 7-11breathing (MISP, 2011).

Reflections

This session had gone particularly well in terms of there being a sense of success in the participants of having cultivated a quality of kindness in their attention. The participants had been better at settling into the practices.

Session 6 – Monday 15.3.10

This session began with a short practice involving focusing on physical sensations in the body, using the metaphor of the “spotlight of attention” to help them guide their attention. The concept of "mindfulness" was discussed in terms of that it involved repeatedly bringing the mind to where they were now, in the present moment and examples of how this had been done in various practices, including mindful movement and the body scan, were discussed. In this way, the concept of mindfulness in each of the practices was made more explicit. The participants started discussing how they had tried various mindfulness practices at home and in the classroom.

The session continued with the sitting mindfulness practice, in which they were courage to notice or observe the contents of their attention. Next, mindful movement practices and the body scan was covered. The final two practices were done while sitting in chairs. These were a "3 Minute Breathing Space" which lead into another practice of mindful eating, again using raisins. The participants then drew or wrote about their experiences, including how they might practice mindfulness at home. Finally, as a group, they gave some feedback on the session itself.

Reflections

I drew my experiences of the session. This session had been particularly challenging and I did not draw myself looking particularly happy. I realised that I needed to review the "five mindful rules", including one that provides an option to opt out of participating and sit quietly to one side. I also considered how participants may be encouraged to develop their intention to practise, as intention is key to developing mindfulness (Shapiro et al., 2006)

Session 7 – Friday 19.3.10

This session began by drawing attention to posters that had been put on display. The posters, of famous individuals who were known to practice mindfulness, were discussed in terms of ways in which others had found the mindfulness practices useful. The overall aim of the session was to extend the length of the sitting mindfulness practice, the "3 Minute Breathing Space", so that they would be more time to focus on exploring thoughts, feelings and body sensations. Furthermore, the participants were told that the plan included attempting to flow from the mindfulness into the body scan before coming to this practice.

The participants were also asked to name some feelings, both positive and negative, and to consider how their bodies felt when these feelings have been experienced. It was explained that the mindfulness practices would involve being aware of feelings and their related body sensations. Following this was a period of mindful movement which lead into the body scan and then, a sitting practice. During these practices, the participants were encouraged to be mindful of themselves, noticing any feelings and body sensations and exploring widening their attention to encompass this additional content if possible.

Following this, a game was introduced in which the singing bowl was passed around to each of the participants who would ring it. The aim was for all the participants to maintain silence throughout this practice, working together as a group and taking turns with the singing bowl. This game was an adaptation of the "spaghetti game" that had been observed while work shadowing another

teacher of mindfulness to children (see Appendix C for the notes from work shadowing a mindfulness teacher).

After this, the participants were invited to draw or write about their experiences. Finally, there is a short feedback session with all the participants in a group.

Session 8 – Monday 22.3.10

The eighth session began with an explanation that the session will focus on sustaining the attention on the movements of the breath. It was explained to the participants that they would be encouraged to observe the kinds of thoughts that distract their attention. One goal of mindfulness practices is to help children develop a greater awareness of thoughts, feelings and body sensations (Semple & Lee, 2008). Furthermore, it was explained that some feelings can be experienced as positive and that such feelings distract our attention by drawing our attention towards them. In addition, some feelings are “negative” and distract our attention as we try to avoid noticing them. The participants provided their own examples of both types of feelings and related body sensations. They also rated some of these feelings in terms of the extent to which they may affect what they are trying to focus upon.

The mindful practices began with some mindful movement, followed by a breathing practice, with encouragement to use the 7-11 breathing structure and to focus on the physical sensations of the breath moving in and out of their bodies. Following this, there was a short sitting practice with a continuation of the 7-11 breathing exercise. Participants were encouraged to observe the kinds of thoughts that may take their attention away from this exercise. The sitting practice was lasted 6 minutes and was followed by the participants drawing or writing about their experiences.

The session continued with the game using the singing bowl to support them in developing their concentration as a group. It ended with some feedback on their experiences of the session itself.

Reflections

This session had been particularly challenging and it was difficult to know to what extent they had been able to accept the thoughts feelings and body sensations that had come into their awareness. Due to there being an extended sitting mindfulness practice in this session, the body scan practice had been omitted and the participants appeared to have missed this. Consequently, it was decided that this would be included in further sessions.

Session 9 – Friday 26.3.10

This session began by asking the participants what they understood by the term "mindfulness". This included the discussion on what helps them be more mindful and what gets in the way. The participants were given a small hand out to take home outlining the stages for the 3 Minute Breathing Space practice. That this was the penultimate session and that all information provided would be made anonymous was also discussed.

This session aimed to do a long series of mindfulness practices. It included a sitting practice (2 ½ minutes), mindful movement (4 minutes), a short (30 second) transition, a body scan practice (4 minutes), another transition (1 minute) to sitting, a sitting mindfulness practice (2 minutes), a kindness practice (3 minutes), another break (3 minutes) and the bell game (3 minutes). Lastly, they wrote or drew about their experiences.

Reflections

I thought that the session had worked better and that having clear boundaries helped. At one stage one of the participants was given the option to opt out when she seemed to be struggling with one of the sitting mindfulness practices. She responded well to this. Eric needed to leave early to go to his cycling practice.

Session 10 – Monday 29.3.10

The aims of the session were to focus on cultivation of kindness in mindfulness practices, to review what they define as mindfulness and to bring the group sessions to a close. Unexpectedly, a performance on drug awareness had been scheduled at this time. It finished 15 minutes before

break so the group met for a short session together at this time. It was not possible to continue for more than 15 minutes after break as the room was being used. Furthermore, as it was a few days before the end of term it was not possible to do another session later that week.

This short 15 minute session started with the children coming back from the show. All were present except Barbara who was absent from school that day. As this would be the last group session, and time was limited, the focus was on closure. There was a review of the rationale for practicing mindfulness and ways to cultivate a kind and gentle quality of attention. The session also explained what was going to happen during the final interviews that would happen over the next two days. The participants were also given stickers with the main steps for practicing the “3 minute breathing space”.

After break, the participants did not all arrive promptly, shortening the available time further. During the 10 minutes that were available, the group briefly reviewed the meaning of the words “kindness” and “acceptance” and reflected on ways to enact kindness towards oneself and others. The main focus was on the mindfulness practice that lasted 4 minutes. The format for the “3 minute breathing space” was used, and the poster handout was referred to, with the encouragement that the participants would begin using this in their home practice. Then, the group participated in the singing bowl game, which they seemed to enjoy (3 minutes). Finally, goodbyes were exchanged and the session ended.

Reflections

The session had happened in two parts (with break time being in the middle) and consequently, the group had struggled to settle initially during the second part. However, once they did settle, they focused well. I recorded feeling impressed with how one participant in particular had made an effort to focus.

In summary, the implemented version of the MBAT intervention did not differ significantly from the planned version (See Appendix c for the planned version of the MBAT intervention). The main changes occurred in the third and final

sessions. During the third session, mindful movement was taught before the mindful eating because some of the participants had been delayed in their return from a school trip. Thus, the key practice for that session, mindful eating, was done together, once they arrived. The final session was shortened and divided into two short sections due to the unexpected performance by visitors to the school that the participants wanted to attend. Nevertheless, overall the implemented version followed the structure of the planned version, ensuring that firstly the participants were able to engage in the practices and secondly, that they were encouraged to progress.

Following the intervention, the participants were interviewed individually and this process is described next.

3.3.5. The final interviews

The final interviews were the main source of information on the participant's experiences of mindfulness. At this stage the participants had completed the mindfulness-based intervention, were able to talk more fully about their experiences of mindfulness and could use their drawings as prompts. The key purpose was to elicit information about the participants' experiences or understanding of mindfulness and of learning it.

In preparation for the final interview, all the drawings that had been completed for each child were collated in chronological order and then scanned and copied into an electronic document (See Section 4.2 The collection of drawings from each participant). The interview started by going through the CAMM a second time, again with occasional encouragement for the participants to elaborate on their answers.

Then, the participants were shown their drawings one at a time, in chronological order. They were reminded that these were drawings done during the intervention and asked to talk about what they had drawn, using open ended questions with encouragement if further detail was required. The intention was to facilitate the children to provide, as clearly, openly and

authentically as possible, their own interpretation of their drawings. The researcher took care to put aside any presumptions about what the drawings may be about and allowed the content of the interview to be directed by the participants. The experiences that were described included ones represented in the drawings and further recollections prompted from the drawings themselves. Through this process, the participants gave accounts of their experiences of mindfulness using their drawings as prompts.

Finally in the interview, the participant was guided through a last practice of the sitting mindfulness practice (See Appendix D for the script for “3 Minute Breathing Space”) and then invited again to draw, write or talk about their experiences. The children’s views on the course as a whole were also explored. At the end of the session, the participants were thanked and given a letter to take home, thanking their parents (See Appendix E for the letter to parents to thank them). In the letter parents were invited to make contact if they wished to discuss their experiences or ask any questions. One parent responded to the letter and during the meeting with her, she discussed her experiences of having her child participate on the course. As there was no written permission to include this data, it was not used.

In this way, the data collection was completed. Essentially, the whole process had begun with the initial interviews. During the mindfulness-based intervention for attentional skills, further information was gathered in the form of drawings and writings on the participant experiences of mindfulness. Finally, the participants were interviewed again, and this time, their drawings were available as prompts. Data gathering resulted in audio recordings of initial and final interviews and the mindfulness sessions themselves.

The next stage of the procedure was to analyse the data, predominantly using interpretive phenomenological analysis to interpret the meanings that the participants gave to their experiences of learning mindfulness. There was also a small quantitative component involving analysis of pre-and post-measures using the CAMM. This stage is now elucidated.

3.4. Data analysis stage

The mixed methods approach of the research study was predominantly qualitative and involved the use of IPA. The analysis of the data was consequently divided into two parts. The first part focused on quantitative analysis of data from the CAMM to examine possible changes in levels of mindfulness. It also included qualitative use of the CAMM in developing descriptions of the participant's background in mindful awareness.

The second part of the data analysis presented the IPA, the primary focus of the research, a qualitative exploration of the children's accounts from the interviews. This involved developing a narrative on the children's experiences of mindfulness and included analysing the children's descriptions of the drawings that they did as way of expressing these experiences.

3.4.1. The process of analysing the quantitative data, from the CAMM

This quantitative component was designed to determine whether or not there had been any measurable changes in the participants' levels of mindfulness before and after the MBAT intervention. This data was required to respond to the second research question: How do children's level's of mindfulness change as a result of their participation?

The participants had completed the CAMM during the initial and final interviews, during which they had been encouraged to elaborate on their answers. This was done to make more explicit their reasoning and the meanings behind their responses. In this way, detailed descriptions on the background to the participants and their attentional approaches were developed, based on their responses to the CAMM questionnaire and observations of them during the MBAT intervention. These qualitative findings have been described in the next chapter.

Each questionnaire was then scored to provide a pre-and post intervention rating of the participant's their levels of mindfulness. Due to the sample size

being so small and without a valid control group, no statistically significant result was expected. Nevertheless, quantitative analysis was done. The non-parametric test, the Will-Coxon was selected because there was only one variable (the level of mindfulness), two experimental conditions (before and after participation in the intervention) and the same subjects were used throughout. It compares predicted differences between two experimental conditions against variability in the scores (Pallant, 2010). The statistical package SPSS (version 20) was used. These results have been presented in the next chapter.

3.4.2. The process of analysing the qualitative data, using IPA

This research used IPA to develop a detailed understanding of the participants' experiences of mindfulness. Although there is not a single prescribed way of working with the data, there are common processes to being able to engage effectively and reflectively with the participants' accounts (Smith et al., 2009).

Smith, Flowers and Larkin (2009) provide guidance on structuring the process of IPA using stages and these ideas were used in the research. The main difference in following this process was that the initial steps were applied to all the transcripts, thereby developing an understanding of them in parallel. In this way, the process, while guided by the text, developed in its own way.

Step 1: Familiarisation with the transcripts

The aim of this initial step was to become familiar with the transcripts, a process that had been initiated while the transcripts were created (See Appendix J for aspects of the process of IPA analysis). The recordings were listened to repeatedly, supporting the development of an in-depth understanding of the content, including any underlying nuances. If any thoughts or interpretations arose at the time of transcription, these were recorded as comments within the transcript itself.

For anonymity, the participants were named Adam, Barbara, Calvin, Dudley, Eric and Fiona.

The next step was to transfer the contents of the transcripts to an Excel spreadsheet. This was done to prepare for being able to easily sort the data into themes once these had been clarified. The transcripts were ordered alphabetically according to the participants' pseudonyms. Each participant had two transcripts, from the initial and final interviews. Any comments were also transferred to begin the process of developing the exploratory comments.

Step 2: Adding the commentary to the transcripts

The second stage involved adding commentary to the transcripts. These comments, which were placed in a column to the right-hand side of the interview transcripts, were developed in stages. Initially, this column of exploratory comments only contained the initial comments and thoughts that had arisen when the transcripts had first been created, representing the initial encounters with the data.

Once the transcripts were transferred to the Excel spreadsheet, further comments were added. The final interviews held richer content in terms of the children's experiences of mindfulness and the commentary on these interviews was added first. Then, the commentaries of the initial interviews were developed. Finally, both the initial and final interviews were reviewed to check that these comments had been developed to a similar depth overall.

It is useful to use a range of different kinds of comments, such as descriptive, linguistic and conceptual ones (Smith et al., 2009). These kinds of comments are illustrated using extracts from the final interview with Barbara, one of the participants.

Descriptive comments were used to provide further information, especially where there had been silences or sounds that needed to be explained. For example, Barbara said very little at the start of her final interview. The descriptive comment enabled an understanding of why this happened, explaining that she had felt self-conscious about being recorded.

Line	Theme	Transcript	Commentary
4	Resources	B: It's ok.	She seems hesitant to talk - and I guess that being recorded makes her self-conscious.
5	Resources	R: Ok. Does it make you speak less?	I check this out with her. So that I can clarify her concerns. I hope that my explanation will encourage her to talk. I am relieved to that she was available for her final interview.
6	Resources	B: yes.	The recording is making her nervous and speaking less.

Linguistic comments provide further information about how language was used, making more explicit the way in which meanings were presented. For example, Barbara was asked a question and the commentary explains the tone of how this question had been asked.

Line	Theme	Transcript	Commentary
15	Applications of mindfulness	R: In class? Oh yes. What do you do?	I sound surprised.

Conceptual comments are more interpretive, focusing on what the participant is trying to express as a whole. For example, later in the interview, Barbara spoke about a lunch-time when they were in doors because it was raining outside and she had done a mindfulness practice with a friend in the classroom, with her class teacher's permission.

The commentary provides background information, making explicit her assumption that there is an awareness of the school rule that requires children to obtain permission from an adult to use a classroom. Furthermore, the commentary explains that she had referred to a mindfulness practice that was done lying down (the body scan) and for which a carpeted surface had been useful and she had found, from experience that trying to practice in the corridors was possibly unsuitable.

Line	Theme	Transcript	Commentary
56	Support from others	B: Because there's too rainy. It was too rainy at the time. But last time I did in the corridors where it's dry. And we went inside. And [class teacher] let us do on the carpet.	It helps if class teacher is involved and can support the pupils to practice their skills. And regarding a lying down one, it helps to have a carpet for that.

Overall, adding commentary to the transcripts helps put the quotes in context and provide understanding of aspects that may not be immediately clear.

Step 3: Developing the emergent themes

Once the commentary had been developed, the next step was to identify those parts of the transcript that explicitly explored children's experiences of mindfulness. Aspects of the transcripts that were not used for developing emergent themes included the children's views on how they may have applied the practices and their participation in the MBAT intervention. Their views on applications of the mindfulness practices were used to respond to the third research question: How might the children apply the mindfulness practices that they have learnt? Their views on the MBAT intervention and learning the practices related to the fourth and final research question: What are children's views on how to teach mindfulness to children? This has been presented in the discussion chapter.

The emergent themes were developed by examining all the final interview transcripts individually and in sequence from Adam to Fiona, eliciting some draft emergent themes. This was then repeated with the initial interview transcripts in the same sequence. Finally, each participant's initial and final interviews were paired up and reviewed in sequence, using the draft emergent themes as a guide. In this way, the final set of emergent themes was produced. Later, during the analysis phase, these themes evolved and a final step of themes was produced. Details of this process are now provided.

Consequently, the initial steps to eliciting any themes was done while creating the exploratory comments. If there appeared to be any threads that linked sections of the texts together, these were given a label and noted on the left-hand side of the transcripts, under the heading of emergent themes. Later, once all the exploratory comments had been completed, these comments were used as suggestions for further developing the emergent themes.

At this stage in the process of analysis, when the data from the drawings was considered, the intention was to ensure that any interpretation was based upon the children's perceptions of their own drawings, using the accounts that they gave in the interviews. Overall 42 drawings were made and based on how the children had described their drawings, the drawings were grouped together into sub-themes related to “emotions”, “physical experiences”, “sounds”, “memories”, “fantasies”, “on awareness of the attention”, “mindful drawing” and “doodles” (See Appendix L for the collections of drawings from each participant). Throughout this process, the intention was to minimise the potential for misinterpretation was thus avoided or at least minimised, by trusting what the children had said about their drawings (Dockett & Perry, 2004). It was from these accounts that any further interpretation by the researcher was based (See Step 5: Deepening the analysis).

The next stage was to study each transcript systematically from Adam to Fiona, seeking out key ideas for themes. Following this, the threads that linked the commonalities and diversity of the content of the final interviews became more evident. The transcripts from the initial interviews were studied for any further themes and in this way, a first draft of possible themes was compiled (See Appendix J).

Step 4: Further clarification of the emergent themes

The next step was to repeat the process of determining the emergent themes, albeit this time, in a slightly different way. The purpose of this was not only to further develop the initial emergent themes but also to increase confidence in them. The resultant set of emergent themes was therefore developed through

a process of double checking the draft themes thereby generating a final set of emergent themes, reliably representing these children's experiences.

This step began by printing out all the transcriptions, including the columns containing the exploratory comments and draft emergent themes. These transcripts were analysed systematically, considering one set of transcripts per participant at a time. Commonalities between sections of texts were labelled by writing on post-it notes and sticking these on the printed copies. This was an attempt to map the interrelationships, connections and patterns between exploratory notes, by focusing upon sections of the transcripts and using the exploratory comments.

Eventually, the post-it notes from the transcripts of each interview for all the participants were sorted in to groups. Any matching themes between interviews and participants became clearer. At this point, the initial emerging themes and ideas from the post-it notes were compared to each other. The aim was to create a hierarchy of themes, arising from an understanding of the content of this transcripts and their interpretations, representing areas of meaning shared by both the participant and the analyst (Smith et al., 2009).

This process of looking for patterns and connections between emergent themes in order to develop the hierarchy of themes, involved the use of a range of techniques, such as abstraction and contextualisation. The process of abstraction involved identifying patterns between sub-themes, thereby creating a 'super-ordinate' theme. For example, the theme "memories and imaginary places" included the sub-themes of "positive memories", "negative memories" and "imaginary places".

Contextualisation is a technique to cluster themes together that share the same context. For example, the sub-themes of "breath/ body awareness" and "sounds awareness" were grouped together under the theme of "Awareness of body sensations and sounds", because they shared a common concept of experiences of present moment awareness, state mindfulness.

Thus, findings related to children's experiences of mindfulness were analysed in terms of four distinct themes:

Theme 1: Feeling calm, relaxed, happy and confident

Theme 2: Awareness of body sensations and sounds

Theme 3: Memories and imaginary places

Theme 4: Awareness of the attention itself

Step 5: Deepening the analysis

The final step was to focus specifically on an understanding of the children's experiences of mindfulness. For each theme, exemplary extracts from the interviews were identified and interpreted in an in-depth, more detailed way, thereby enriching the understanding of the participant's experiences (Smith et al., 2009). This process of interpretative analysis was done by empathetically relating to the participants' experiences and then critiquing these by referring to the literature. This reflected a dynamic between two interpretive positions: the "hermeneutics of empathy", interpretation through empathising with the participant, and "hermeneutics of suspicion", the questioning and critique of that experience with reference to the theory (Smith et al, 2009, p.36).

In this research, the first step was to use information from the interviews to facilitate an empathetic connection to the participant's experience as it was expressed both verbally and visually. As part of this, the drawings were analysed in terms of the content of what they expressed, following what the children had said about them. The second step was to critique these experiences by referring to the neuropsychology of attention, cognitive theory on mindfulness, philosophy and Buddhism.

With critical realism, the epistemological position of this research, the outcome of the analysis is a descriptive account. The process of further analysing those findings related to the children's experiences of mindfulness, with the researcher being key in this process of making sense of the participants' experiences (Shinebourne, 2011). Consequently, the analysis generated a construction of the reality of the participants' experiences of mindfulness

For each theme, descriptions of the children's experiences of mindfulness were created. The first theme focused on experiences that were described as "feelings". Included in the data, were the children's accounts related to eight of their drawings. Of these drawings, five described feeling relaxed, one described a calm state, another, a happy state and the last, feeling "weird".

The second theme, focused on experiences relating to physical sensations, including body sensations and sounds. Linked to the children's accounts, there were 12 related drawings. Six were on details of physical sensations themselves. Three of these drawings were on "dizziness". One was on the breath itself and another on 'spatial awareness', and the last described sounds heard as part of the experience during the mindfulness practice.

The third theme focused on experiences of the thoughts that were not particularly related to the present moment. In this category, there were accounts of memories and imaginary places. Related to this were 12 drawings, including five on being at the beach and four on imaginary places.

The fourth theme described accounts in which the children had experiences of being aware of the attentional processes themselves. Their accounts related to 10 drawings, which included four on images of observing the thoughts, three that had been done in a state of mindful awareness and three that expressed their use of strategies to sustain the attention on a chosen event in the present moment, for example, the movements of the breath.

The themes and related drawings were summarised (See Appendix M).

Reflexive note: How the themes were influenced

This aspect of the reflection focuses upon the interpretive phenomenological analysis of the transcripts. I realised that while developing the analysis, I had a bias towards understanding how the participants had applied their use of mindfulness to paying attention in the class setting. Nevertheless, it seemed appropriate to have this interest, since the intervention was intended to

support the children in developing attentional skills in the class setting. I also acknowledged that having observed a number of courses on the use of mindfulness with adults suffering from depression, I theorised that attentional difficulties arose from patterns of distractibility, automaticity and rumination and presented these ideas in discussion chapter.

During the analysis, I noticed changes in the process by which the children developed self-awareness through the MBAT intervention. Their pictures appeared to express a journey from initial experiences of physical sensations to an emerging meta-awareness of attentional processes. Overall, these reflections had an influence on the themes (See Chapter 5).

The qualitative component was explored through the use of IPA. Embedded within the research was a quantitative component, incorporating the use of the self-report questionnaire to measure levels of these participants mindfulness before and after the intervention. This aspect of the research is now outlined.

3.4.3. Reporting the Findings

The results of this research were first presented to the educational psychology service in the borough in which this research took place. Aspects of the data were also presented at the Mindfulness Now conference at the Centre for Mindfulness Research and Practice, Bangor, Wales. Plans were made to present a summary of the findings to school staff, parents and children involved in the research. The intention was also to publish these results in a peer reviewed journal to share the research with other professionals.

Summary of the chapter

This chapter explained the theoretical and epistemological framework for the research and the stages of the research implementation, including planning and preparation and data gathering, including the pilot, the interviews and the implementation of the MBAT intervention. It detailed how the data was analysed. The next chapter outlines the findings.

Chapter 4: Using the CAMM to explore experiences of mindfulness

Overview of the chapter

This chapter firstly presents detailed descriptions of each child, the background to the participants, using qualitative information from the CAMM and observations of them during the MBAT intervention.

Secondly, it presents the quantitative results from the CAMM.

4.1. Background to the participants and their attentional difficulties

All references to the transcripts were labelled (See Appendix J) and the participants were anonymously referred to as Adam, Barbara, Calvin, Dudley, Eric and Fiona. In addition, a code was developed to identify a specific row in a particular transcript and comprised of:

1. A letter representing the initial of the participant, i.e. A, B, C, D, E or F
2. A number, either 1, for the initial interview or 2, the final interview.
3. A number, representing the comment's row in the transcript.

For example A1:70 referred to the 70th line in Adam's initial interview. When a response from the CAMM was included, the related item in the CAMM was specified. The first item was referred to as [CAMM:1].

4.1.1. Adam

During the initial interview, Adam indicated that he often 'got upset with himself for having certain thoughts' [CAMM:18] (A1:70). When asked to elaborate, he was reticent to talk about what thoughts preoccupied him (A1:71). Furthermore, he indicated that he always 'thought that some of his feelings were bad and that he should not have them' [CAMM:21] (A1:79). He

was clear that he preferred not to speak about his feelings, especially 'bad ones' (A1:81). Later, he explained that his feelings were like waves, going up and down (A1:93), and that there were times when he cried without even knowing why: "...sometimes I might be feeling happy, and then sometimes I feel sad, and then I don't.. And then I start to cry, well I don't really notice that I'm crying." (A1:95). At times he was overcome by sad feelings.

He indicated that he rarely 'focused only on what he was doing and nothing else' [CAMM:9] because sometimes someone might need help and so he needed to know what was happening (A1:50). He also indicated that he always 'found it hard to pay attention to only one thing at a time' [CAMM:16] and often 'tried to do many things at once' [CAMM:19] and gave the example of playing a game, while answering questions and writing all at once (A1:75).

Overall, Adam spoke slowly, repeating a lot of what he said. He also drew very slowly. He often sounded sad and seemed preoccupied, although he never mentioned what was on his mind. When doing a mindfulness practice, even when sitting upright, he struggled to stay awake. He chose not to attend sessions 6, 7 and 8, and returned to the intervention for sessions 9 and 10. He explained that he had wanted to focus on his class work.

At the final interview, Adam was still repetitive in his speech. He indicated that he always 'stopped himself from having feelings that he did not like' [CAMM:25], and explained, "*Well I stop myself having bad feelings bad feelings I stop myself from having bad feelings most of the time because I'm feelings I'm thinking about how I'm feeling and why I'm feeling. And I'm think about what's what's happened and why I'm feeling like that.*" (A2:76) He explained that he tried to fully focus on what was happening in the present, because in this way, if he had made a mistake then he was less likely to make it again. He explained "*If I've made a mistake then then I won't have to make a mistake. I won't have to do it again*" (A2:86). From his use of the words "have to", it seemed that he considered it inevitable to repeat mistakes unless he remained vigilant. The intervention had helped his awareness of what was happening in the present moment (A2:92), but he was unsure how (A2:94).

4.1.2. Barbara

During the initial interview, Barbara was initially quiet and fairly hesitant to talk, but quickly she relaxed and became chatty. She 'got upset with herself for having feelings that did not make sense' [CAMM:2], such as feeling sad for people when something happens to them (B1:31). She seemed empathetic, although unsure about how to make sense of this. She appeared to have a kind and encouraging approach to herself, saying that when 'upset with herself' [CAMM:18], she would encourage herself to do what she had to do: *".. whenever I feel sad, I tell myself don't be sad, just forget about it. Just try to do what you are supposed to do."* (B1:47).

One of her difficulties was that 'when something good happens, she could not stop thinking about it' [CAMM 11]. Once her mind was on something enjoyable, it was hard to focus on something else (B1:49) and she explained that it was 'hard for her to pay attention to only one thing at a time' [CAMM:16] and that she would miss instructions when distracted, *"because sometimes the teacher tries to tell one thing and then I forget about it and he starts going into another thing that I remember one but not the first part"* (B1:57).

During the intervention, she occasionally appeared to challenge the rules of the class. Once she was provided with the option to sit out and simply observe the mindfulness practices, and she tried this out once, explaining that she was having particular difficulty with her concentration that day.

In the final interview, Barbara explained that it was not just positive thoughts that she struggled with, but difficult ones too, including those related to relationships with friends (B2:127). She explained: *"Like some.. sometimes if, like if something bad happens, I always can't thingy. Not sure, I keep saying like, just stop thinking about it, but I can't stop thinking about, but sometimes I do think, when I'm having fun I forget about it, but when I go home, I just keep thinking about it."* (B2:123). Some aspects of her attentional difficulties appeared to be related to a tendency to ruminate on "bad feelings":

4.1.3. Calvin

In the initial interview, Calvin explained that sometimes he 'did things without thinking about what he was doing' [C1:5], and said, "*Maybe something like literacy I would start daydreaming. Start doing something without knowing what I was doing.*" (C1:50). He also described himself as seldom 'keeping himself busy so he did not notice his thoughts or feelings' [C1:8]. If he got stuck on a problem with his work, he would try to simply think about it a little more rather than to preoccupy himself with something else (C1:58). He appeared to be able to focus at times. At other times, however, he would lose track of his thought processes. He explained this, saying, "*Sometimes thoughts just go through my head and I just forget about them.*" (C1:78).

At the final interview, Calvin continued to be aware that he often tended to drift into daydreaming (C2:32). He said, "*There is sometimes when day dreaming then I realize I'm doing something and I'm not really aware of what I'm doing.*" (C2:18). In the final interview, he spoke more about his daydreaming, including being more aware of noticing when he did it and forgetful of what he was actually meant to be doing. He also rarely 'focused only on what he's doing and nothing else, when he was doing something' [C1:9], recognising that often he was rarely fully focused on his work.

4.1.4. Dudley

During the first interview, Dudley explained that he often 'pushed away thoughts that he did not like' [C1:15] (D1:52) and described such thoughts and feelings as "*bad*" (D1:54) and "*not nice*" (D1:56). Later, he described himself as always 'thinking that some of his feelings were bad and that he should not have them' [C1:79] (D1:80). He said that children were not "*meant to have bad thoughts*" (D1:82) and that these were related to being angry (D1:86). He confirmed this approach to his feelings later in the interview, when he described himself as always 'stopping himself from having feelings that he did not like' [C1:25] (D1:98), even though it was difficult to do (D1:100), because he did not like feeling angry (D1:102 to D1:104). It appeared that Dudley struggled with self-regulation of difficult emotions.

Dudley also struggled with distractibility. He explained that he often found it difficult to focus and was easily distracted by "*people talking*" in class (D1: 64). His difficulties seemed unrelated to rumination on past events; he only sometimes 'thought about things that had happened in the past instead of thinking about things that were happening right now' [CAMM:17]. (D1:66).

During the intervention, Dudley was one of the more challenging participants. Although he made an effort to concentrate at times, more often than not he would interrupt and talk during the mindfulness practices when silence was needed. At one stage, I asked him to simply notice when a thought arose in his mind and be aware of it. Following this, he seemed a little more able to manage being silent when it was needed and appeared more self-reflective.

At the final interview, Dudley again said that he always thought 'that some of his feelings were bad and that he should not have them' [CAMM:21], and described his bad feelings as "*angry ones*" (D2: 110). He tended to always 'think about the future' [CAMM:20], about being "*a man*" (D2:100) and how it would be "*fun*" (D2:102) to "*have a good house and some money.*" (D2: 104)

4.1.5. Eric

At the first interview, Eric described himself as being physically relaxed, in that his muscles tended not to feel tense (E1:14). He was generally not easily upset (E1:52) and when he experienced feelings that he does not like, his response was to push them away or calm down by walking away from those upsetting him (E1:68). In general, he 'tried to only think of things that made him happy' [CAMM:7], such as lying down in his bed or ways to help his teacher (E1:26). He was also aware of some difficulty with focusing on events in the present moment and said, in regards to noticing thoughts or feelings, explained "*I don't notice anything.*" (E1:30).

At the final interview, Eric indicated that he sometimes paid close attention to his thoughts, saying "*I just like paying attention to my thoughts, thinking about people*" (E2:62). He also explained that he never stopped himself having

feelings he did not like, even "*sad feelings*" (E2:126). Overall, it appeared that Eric's main difficulties with attention arose from a habit with daydreaming.

4.1.6. Fiona

In general, Fiona came across as shy and quiet. She spoke very little throughout the interviews and the course. She needed a lot of prompting to get her to give more than one word answers. During the CAMM questionnaire, when prompted to elaborate on an answer that she never 'tried to only think about things that made her feel happy' [CAMM:7] (F1:28). She explained that "*sometimes I think about sad things*" (F1:30). When asked if she choose to think about sad things, she explained that this just happened, and that sometimes sad thoughts simply appeared in her mind and consequently, she would think about them (F1:32).

She explained that never 'noticed when her feelings began change' [CAMM:22] (C1:51) and that a lot of the time she had "*sad feelings*" (F1:52). She was prompted for further elaboration on her response that she never 'stopped herself having feelings that she did not like' [CAMM: 25] (C1:55). She said, "*It just stays in my mind*" (F1:56), explaining that she was unable to stop these difficult thoughts or feelings even though she wanted to (F1:58).

In the final interview, Fiona continued to express a focus on thinking about unhappy thoughts and explained that she did not only try to think about things that made her feel happy, and instead "*I usually think about bad things*" (F2:50). She sometimes got upset with herself for having certain thoughts and this made her go quiet. She said, "*Sometimes when I get upset with myself about something and then I'll shut up and...*" (F2:80). In general it seemed that when she gets upset with herself about something and this makes her go silent, reflecting her difficulties with self-expression.

Overall, the CAMM questionnaire had been used as a framework for understanding aspects of the participants' backgrounds, focusing on aspects of mindfulness and self-awareness. In summary, Adam and Fiona appeared preoccupied by strong and essentially sad feelings. Barbara and Dudley

seemed all too easily distracted by external events. Calvin and Eric tended to daydream fairly easily. In the discussion, speculation on the children's attentional difficulties and mindfulness is presented (See section 6.5). The next section focuses on the quantitative results from the CAMM.

4.2. The results from the CAMM

The CAMM scores for each participant were recorded in a table (see Appendix N) and these results are summarised here:

Participant	Score at initial interview	Score at final interview	Change in level of mindfulness
Adam	48	44	-4
Barbara	44	51	7
Calvin	56	50	-6
Dudley	62	53	-9
Eric	60	55	-5
Fiona	61	69	8

These results show variability in the changes in the levels of mindfulness. Overall, four of the six participants, Adam, Calvin, Dudley and Eric, had a decrease in levels of mindfulness, whereas two, Barbara and Fiona, had an increase. The reasons for this heterogeneity are discussed in section 6.2.1.

Descriptive Statistics

	N	Percentiles		
		25th	50th (Median)	75th
Sum of Pre	6	47.00	58.00	61.25
Sum of post	6	48.50	52.00	58.50

Wilcoxon Signed Ranks Test

		N	Mean Rank	Sum of Ranks
Sum of post - Sum of Pre	Negative Ranks	4 ^a	3.00	12.00
	Positive Ranks	2 ^b	4.50	9.00
	Ties	0 ^c		
	Total	6		

a. Sum of post < Sum of Pre

b. Sum of post > Sum of Pre

c. Sum of post = Sum of Pre

Test Statistics^a

	Sum of post - Sum of Pre
Z	-.314 ^b
Asymp. Significance (2-tailed)	.753

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks.

These results show the percentile median score before the intervention as 58 and afterwards as 52. The difference between these scores was not significant, $z=0.753$, $p<.001$. This was interpreted as there being no measurable difference overall between the participant's scores (levels of mindfulness) before and after the intervention, as measured using the CAMM.

Summary of the chapter

This chapter provided a background to the participants using the CAMM questionnaire to develop an understanding their approaches to paying attention. The CAMM questionnaire had also been used to provide as a preliminary method for exploring the measurement of mindfulness with this age group. However the results were statistically not significant.

Chapter 5: IPA of experiences of mindfulness

Overview of the chapter

This chapter presents an in-depth interpretative phenomenological analysis that provides a construction of the reality of the participants' experiences of mindfulness, described through these themes

Theme 1: Feeling calm, relaxed, happy and confident

Theme 2: Awareness of body sensations and sounds

Theme 3: Memories and imaginary places

Theme 4: Awareness of the attention itself

For each theme, particular extracts were identified and related to in an empathetic way, to explore the experience from the participant's viewpoint. This interpretation was then critiqued with reference to the literature on mindfulness, attentional networks, philosophy and Buddhism. The drawings were analysed by building upon the accounts that the children had provided during the interviews, which were developed into themes. Consequently, the outcome of this analysis, the narrative, was therefore a construction of the reality of the participants' experiences of mindfulness. This account responds to the main research question: What are these children's experiences of mindfulness?

Themes 1 to 4 have been arranged according to the depth of reflection that their content represents. There is minimal level of awareness, 'pre-reflexive reflexivity' and an intermediate stage of 'pre-reflexive experiencing' that involves attentive reflection on the direct experience of events themselves. In the higher level of reflexivity, awareness is deliberately controlled and the content of the attention is thus enabled to replay a sequence of events (Smith et al., 2009). At this level, reflexivity enables meta-awareness, or awareness of awareness itself and the contents of attention (Siegel, 2007).

Themes 1 to 4 focus on the level of reflexivity required to recall experiences at a later stage and express them through drawing, writing or speech. For this, participants needed to have had pre-reflexive experiencing. Theme 4 focuses on the use of mindfulness for deliberately increasing reflexivity and explores the participants' expressions of awareness of the attention itself that represent the use of higher-order cognitive skills in reflexion or mindful awareness.

5.2. Theme 1: Feeling calm, relaxed, happy and confident

The participants first and immediate experiences of mindfulness were all positive, and were described as "*good*" (B1:85, C1:122, D1:108, E1:84). These responses were similar to those expressed in the pilot interviews and consequently, a similar response had been anticipated. Furthermore, at both the initial and final interviews and in drawings, the participants expressed experiences of finding that the practices had a calming, positive and relaxing effect on them. These experiences are further interpreted here.

5.2.1. Feeling calm

All the participants mentioned calmness, relaxation, happiness or peacefulness in their experiences of mindfulness. Seven of their drawings explicitly expressed this. As this was a main theme in their experiences it has been analysed in-depth in the next chapter. In this section, the findings in the drawings that relate to these feelings are summarised here.

Following his first experience of the sitting meditation, Adam said that he felt very relaxed, especially his muscles and heart (A1: 23). He also noticed sounds around him, both quiet and loud (A1:121). The practice had helped him feel better than he "normally" did (A1:137), although did not elaborate further (A1:141). He thought that this practice might be useful for times when he felt worried, and that by closing his eyes (and doing the practice), he could help himself feel better (A1:111).

At the final interview, Adam, when reviewing his first drawing (completed during the fourth session – see picture opposite), explained that he had felt *"really kind of happy"* (A2: 124) and *"calm"* (A2: 126) particularly when being able to sustain his awareness on his attention, described as *"staying on*



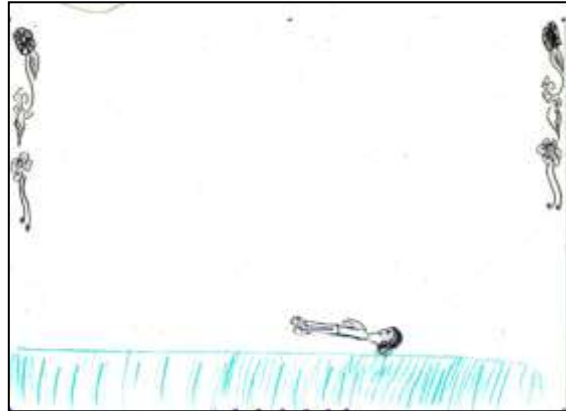
the spotlight" (A2: 126). The spotlight, here refers to a metaphor used to describe the attentional focus, and was taught during the mindfulness-based intervention. The directing or controlling the 'spotlight' or attention required the use of the executive attention and consequently contributed to its development. While Adam felt successful at being able to control his attention, calmness was also a result of the practice itself.

After the mindfulness practice during the final interview, Adam described feeling calm in a way that was similar to one before bedtime: *"Like how I feel like how I feel when I go to bed, because when I go to bed, I feel very I feel very calm (...) like I'm calm, very calm like I'm ... I'm not sure how to say it."* (A2:186). There was a sense of Adam being less troubled by the kinds of thoughts that appeared to have worried him before. However when asked about this explicitly he was not sure how the mindfulness practices may have been linked. Nevertheless, his overall experience was one of calmness.

Eric's experience of the initial practice in the first interview was that it felt *"calm"* (E1: 86). It seemed surprising that a short 3-minute practice may have been sufficient to elicit a calming response. Nevertheless, it may also have been that having overcome initial anxieties about the interview process, Eric felt calm and that the practice enabled him to be aware of it. When repeatedly encouraged to elaborate on his short responses, he simply used the words *"good"* (E1:95), *"fascinating"* (E1:97) and *"cool"* (E1:101). At the time, it was not clear how to interpret this. Later, in the final interview he used a metaphor of heat to describe emotions. In reference to this experience in the initial

interview, he said *"I'm feeling cool, like no hotness, just like it is smooth"* (E2: 135,138), contrasting this to *"hotness feelings"* (E2: 144) associated with feeling worried or anxious. It appeared that the mindfulness practice had 'smoothed' and 'cooled' the emotions and this was 'fascinating' to him.

Barbara also mentioned calmness, when referring to her drawing from the second session, and said, *"My body was calming down, because I was actually excited, but then when I was thinking about lying down in the thingy [bodyscan], but my body felt calm and er.. just got on what I was doing."* (B2: 229). The process that she was describing was quite elaborate. Firstly she felt herself calming down from an initial state of excitement and agitation. She explained that she had been engaging in the body scan practice, which involved focusing upon parts of the body one at a time. She recalled that she had been aware of her body feeling calm as she continued with the practice.



Again this illustrated not only the calming effect of taking the attention to the body, but also of an emerging awareness of the process, the intentional cultivation of controlled reflection. She had been aware of her body sensations during the practice, known as pre-reflexive experiencing of the sensations that occurred. Furthermore, she had deliberately controlled the process of experiencing at the time and had been able to reflect on this during the process of drawing. Consequently, she had demonstrated a higher-order cognitive skill of deliberate controlled reflection (Smith et al., 2009). In addition, since this process had not been expressed in previous drawings, it could be argued that these skills had been encouraged as a consequence of the MBAT course and the process of drawing itself.

5.2.2. Feeling relaxed

Adam found the effect of his first mindfulness session to be relaxing. Furthermore, he felt better than he “normally” did (A1: 137). At first it was unclear as to what he had meant and he did not elaborate despite encouragement to do so. In reflection, considering his earlier responses (from the CAMM questionnaire), he had a tendency to feel sad and struggle with rumination on difficult feelings. It is possible that this immediate, initial experience of focusing his attention on the kindly way upon present moment events relieved him from preoccupations, helping him to feel better than usual. He appeared to hint at his concerns, when he described the practice as being useful for times when feeling worried. He seemed to immediately realise that by closing his eyes (and doing the practice), this could be a remedy: *“It was like.. hmm .. I have something that made me feel like a.. something that made me feel like um, like if, like if like a ..I’m a worried, or something like that, then I could like, I could like.. well, like, I do this thing that I was doing before when I closed my eyes .and I noticed just.. some stuff, like that.”* (A1:111).

In his drawing of the fifth session (see picture opposite), Dudley became aware of feeling relaxed and expressed it in his drawing. He drew himself in green with a blue heart, surrounded by a blue outline and then a brown one, saying, *“The green is me. The*



blue is the ‘relax’. And the brown is comfortableness.” (D2:208). He also explained that his heart, which had been drawn in blue, was “*part of the relax*” (D2: 218). Green, blue and to some extent brown, are considered to express calmness and coolness, as opposed to red, orange and yellow that express agitation or heat. By drawing these colours all around himself, he expressed an experience that embodied him from head to foot, an experience of being surrounded by relaxation and beyond that, an overall comfortableness. This expressed his emerging awareness of physical sensations during the body

scan practice and thereby, skills in maintaining a focus on the present moment. This had been lacking in previous drawings, which depicted objects that had surrounded him and experiences of sitting, lying down and recollecting a past event. This was the first time he had expressed an awareness of internal physical sensations, and for this reason this drawing has been interpreted as expressing mindful awareness.

Overall, the participants experienced calming, relaxing, positive effects from the practices and these are interpreted using literature from Buddhism and cognitive psychology. Buddhism explained that when various mental processes work together harmoniously, a state of mind is cultivated that is “calm, relaxed, serene, peaceful, smooth, soft, pliable, bright, and equanimous” (Gurantana, 2009, p.13). Although the state of mindfulness itself can be experienced as being pleasurable, in Buddhist psychological theory, this is not considered to be the end goal of the practice (Gurantana, 2009; Rapgay & Bystrisky, 2009). The aim is to develop cognitive flexibility (Chaskalson, 2005) and this harmonious state is essentially calm and relaxed.

In contrast, in aspects of clinical applications of mindfulness, cultivating this state of mind can be thought of as the aim of the practice, particularly as a solution to anxiety disorders (Greeson & Brantley, 2009). When anxious, or when ruminating, biological survival mechanisms are activated that mobilise the body into a state of readiness for action, including increasing respiration and heart rate (Barlow, 2002). Mindfulness practice can counteract this by decreasing breathing and heart rate and facilitating the relaxation response (Ditto, Eclache, & Goldman, 2006). For this reason, such practices have been used to support children with anxiety difficulties (Semple & Lee, 2008).

In conclusion, mindfulness is more than simply about calmness and relaxation (Jain et al., 2007). While mindfulness meditation and relaxation practices may be used to reduce stress and induce relaxation, only mindfulness could address the underlying thoughts to rumination and anxiety. Consequently, mindfulness had a more profound impact on distress (Jain et al., 2007).

5.2.3. Feeling happy and confident

One effect of practicing mindfulness was more individualistic. Fiona, who tended to be reserved, described her initial experience as "fine" (F1:64), "weird" (F1:66) and "weird funny" (F1:79), possible related to having her eyes closed, which could be unusual in a school context. However, in reference to her drawing from the second session, it appeared that she had been better able to relax.

While she had drawn little, she explained that she had felt "*relaxed*" (F2:114), "*happy*" (F2:122), and that was why she drew a smiley face (F2:118). She also felt a sense of "*peacefulness*" (F2:182) and like "*talking and singing*" (F2: 202).



The talking and singing aspect could be an impulse to express happiness and share this with others. This indicated some increase in self-confidence. She presented as quiet and shy and even when she spoke about this, it was in a whisper, as though she could barely admit it to herself, such was her surprise.

Towards the end of the interview, she said "*I was much more shy when I first come*" (F2:272), confirming again that her participation had helped her feel happier and raise her self-confidence.



5.3. Theme 2: Awareness of body sensations and sounds

In this section, the analysis focuses upon findings relating to experiences of body sensations and sounds that had been experienced during the mindfulness practices, and therefore while the attention had been directed towards and sustained upon events in the present moment.

5.3.1. Awareness of internal body sensations

During the initial practice of mindfulness, four of the six participants, mentioned an awareness of physical sensations. Such sensations included the heart beating (A1:123; B1:76), the blood flowing through the body (B1:91), muscles relaxing (A1:123) and awareness of being in an upright sitting position (D1:110) and the eyes being closed (D1:128).

During the intervention, the participants expressed experiences related to physical sensations, including through drawings. Overall, 12 drawings depicted physical experiences of mindfulness practices and these were further described during the final interview.

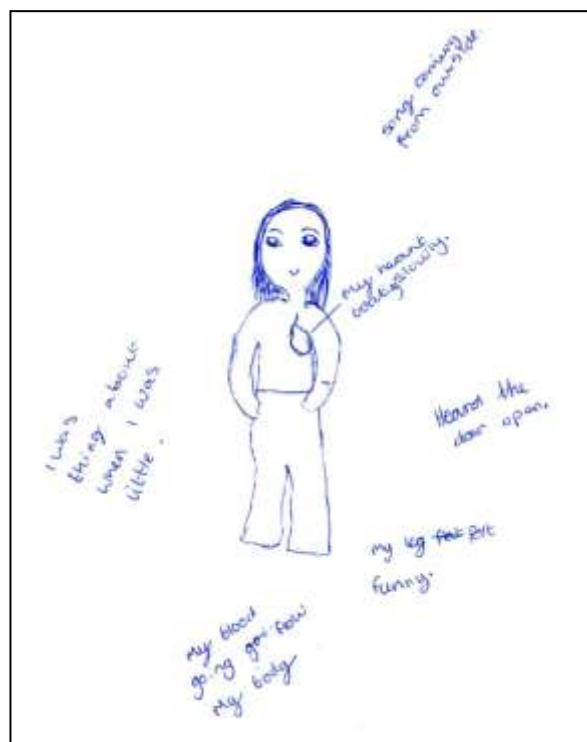
Barbara, in explaining her drawing from the first session, said that she had noticed her heart beating (B2:117), felt blood going through her body (B2: 217) and that her legs had been "tickling" her (B2: 203). Again this had been a focus on subtle physical sensations.

Adam had also noticed his breathing and later, was prompted by his picture from the fourth session which he explained, *"I drew this. I drew this picture because I was thinking of how I was feeling now. I was thinking about I was feeling now and how I feel and how I feel sometimes. So I drew this picture to.. Because I feel.."*



Because sometime I'm feeling sometimes I'm feeling what is happening around me. Yes and I'm like focusing on my body and what I feel and what I feel what is happening to my body and how I feel when I'm.. And how I feel when I'm doing something" (A2: 106). He had drawn himself focusing on his body and its sensations. His difficulty with verbalising these experiences was also expressed, although he managed to explain that sometimes he felt what was happening around him, including body sensations and his actions (A2:106). He recalled moving his attention to his feet, his knees and other body parts (A2: 128) and sustaining attention on present moment physical sensations within himself.

Barbara's description of her initial experience of practicing mindfulness was predominantly in terms of physical sensations (See picture opposite). She explained that she could feel her blood going through her body (B1:91) and her legs feeling "*funny*" (B1:80), almost as though they were being tickled (B1:81). She could hear her heart beating and "*people moving around and chairs*" (B1:76). She did mention her mind wandering from the practise, when she recalled being younger (B1:93) and playing with her mother (B1:95). Overall, she found it energising (B1:85).



Eric expressed the embodiment of an experience of practising mindfulness, drawing himself sitting cross-legged (although he had been sitting in a chair), and described himself as "*meditating*" with his eyes closed (E2: 132) (See picture on next page). From the perspective of phenomenological psychology, we are essentially embodied and a disembodied perspective of the mind is particular to cognitive science (Gallagher & Zahavi, 2008).

Consequently, in this experience of mindfulness, how the practice was embodied was significant to the participant even though the activity itself involved internal processes.

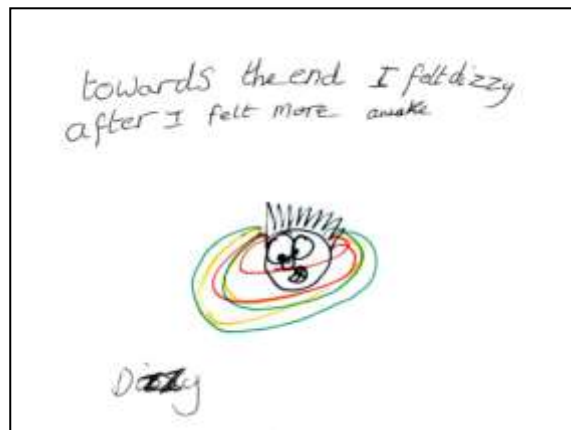
During the seventh session, Fiona drew a picture depicting the breeze that she felt due to air coming in from the window (F2:182).



In terms of progression in mindfulness practice, the initial focus is on developing awareness of the body by contemplating its physical sensations, both internally and externally (Analayo, 2010; McCown, Reibel, & Micozzi, 2010). Consequently, these experiences could be said to reflect emerging states of mindfulness of the body.

5.3.2. Sensations of “dizziness” and “spinning”

One participant in particular, Calvin, had distinctive experiences of physical sensations that changed significantly by the fifth session of the MBAT intervention. (See picture opposite). During the initial mindfulness practice, he described feeling “dizzy” (C1: 128, C1:134), and said, “*My head was spinning*”



(C1:124) He also found that by the end of the practice he felt more awake (C1: 130). He attributed some of this dizziness to having made an effort to concentrate, and explained, “*Maybe it wasn’t really sleepiness dizzy, it was kind of concentrating dizzy.*” (C1:144). At the final interview, when reviewing his drawing of this experience, he described it as something he had almost

enjoyed *"I just felt like I was just spinning round and round. It was cool towards the end."* (C2:76)

In the second session, Calvin had similar sensations. (See picture opposite). He described himself as feeling as though he was *"floating in space"* (C2:82), similar to having been on really fast roundabout or in a swimming pool with a wave machine (C2: 90 and 91). He also acknowledged that he had been a bit tired initially (C2:86) and it seemed likely that this had contributed to these sensations.

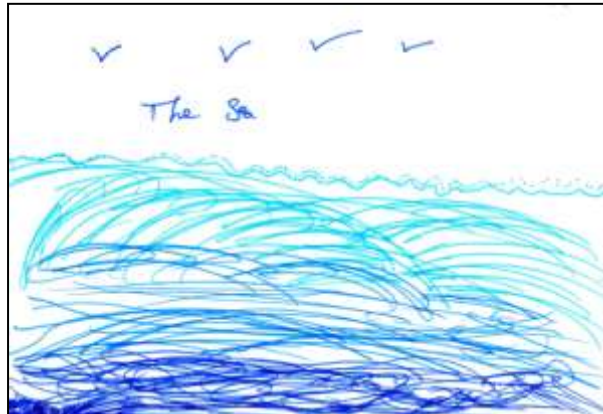


At the fourth session, Calvin drew himself as being at the centre of a whirlwind of sensations, in which *"loads of things were going around"* (C2: 98), *"round and round. Stars and swirls and stuff"* (C2: 102) *"like different colours, getting lighter and darker"* (C2: 112). In this picture (see opposite), it appeared that he no longer felt as though he was the one that was moving, but that there were other things moving that were distinct from him. One interpretation is that he was detached from his thoughts and physical sensations, observing them as it were from a distance. Practising mindfulness can lead to a shift in perspective, such when aspects with which the individual was identified become seen as separate from the self (Shapiro et al., 2006).



In the subsequent sessions, Calvin no longer mentioned such sensations, and drew a picture of the sea representing his breath (see picture on next page),

“because it was like it was like the sea, like it was always moving around” (C2: 116). He described how his breath had a sense of depth (C2: 120) and movement. It seemed that his experience had been like waves of sensation within himself (C2:126). Furthermore, he drew birds in the picture (C2:128) having heard some birdsong from outside (C2:130) and depicted them as flying above the waves of the sea.



The process of breathing occurs so automatically that its motions may be taken for granted and consequently forgotten. Here, Calvin was noticing his breathing with a fresh perspective that encompassed the details of depth and rhythm. In the mindfulness practices, the breath is used as a focal point upon which to direct the attention. This depiction of his breath could be interpreted as an example of mindfulness, in which focusing the attention on the breath was used to maintain awareness upon an event in the present moment.

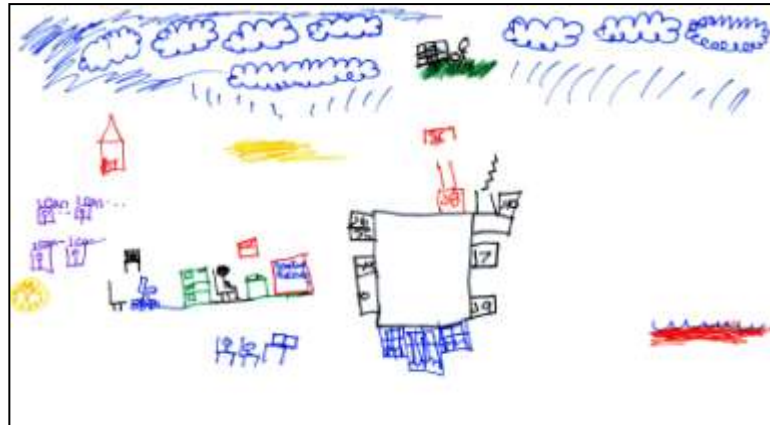
Calvin, in the seventh session, drew a picture of himself lying down, with the word “peace” and explained, “It was peaceful” (C2:166).

5.3.3. Detailed awareness of the external environment

Dudley also had an experience that was unique to him. In the few minutes of the initial mindfulness practice, he became aware of many objects and events *“all at the same time”* (D1:122). He had become aware or reminded of what was happening in the immediate area, the school hallway, his classroom, the school and park (D2:147). He even thought about the distant seaside.

His drawing of this experience (see picture below) was detailed and identified many components, including memories of things that had happened, such as someone in the park kicking a football (D1:136). He also indicated clouds,

rain, the seaside
(D1:146 to D1:152),
the air (D1:156) and
his home (D1:158)
where he lives "*round
the corner*" (D1:160).
In this way, he
described being
aware of many things



around him. His thoughts followed the numerous events happening around him.

In relating to his experience, this could be interpreted as a sense of ‘expanded awareness’, in which his attention was not particularly focused on one thing or another, but was all-encompassing. When recollecting the sequence in which he drew the objects, he had started with those that were nearby and then those further away. Finally, he had drawn aspects that were distant, such as the sea and clouds, and at this stage it was clearer that he was working within the realms of his imagination, although still staying present. He was imagining events in the present moment as they may have been happening.

This experience of the first mindfulness practice was one of unfocused attention, being able to include many objects in the field of attention, thereby taking a broad, all-encompassing perspective, seeing the whole. This would not be considered an attentional difficulty unless the individual were unable to, when necessary, focus the attention onto information relevant to the task at hand. In this case, Dudley did not seem able to sustain his attention on a chosen focus, appearing easily distractible. Speculation on how mindfulness may reduce distractibility by developing attentional control is explored in the discussion chapter.

5.3.4. Feeling alert and energised

Barbara and Calvin both found it made them feel more alert. Barbara said, *“I thought it was good because I’ve got more energy”* (B1: 85), indicating that somehow the practice had left her feeling more energised. Calvin also reflected a similar experience, and said, *“I think I was a bit more drowsy before, but now a bit more awake.”* (C1:130). I wondered if somehow the practice had allowed them to relax and therefore unwanted tensions had been released, providing additional energy. In other words, although their bodies were not mobilised for a survival situation, they remained alert, potentially liberating the attention processes, priming them for a learning situation.

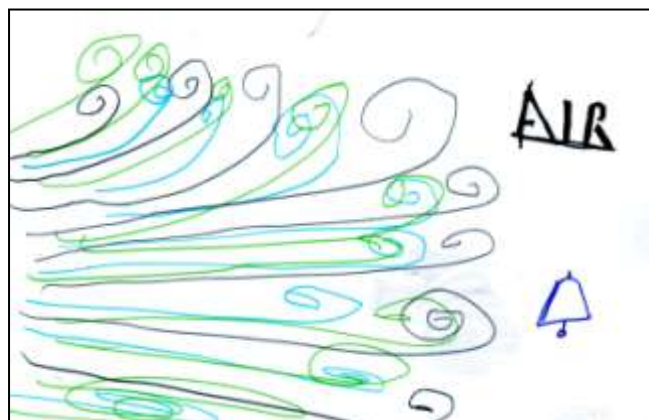
In summary, four of the six participants mentioned awareness of physical sensations and two of those four had experiences that seemed unusual: one had a sense of spinning and dizziness, and the other of a sense of expanded awareness. Two found that the practices helped them to feel more alert.

5.3.5. Noticing sounds

Some elements of being aware of the present moment included having an awareness of sounds, including quiet and loud ones (A1:121) and sounds of people and chairs moving (B1:76).

Calvin was the only participant who drew images related to sounds. For example, in the fifth session,

he included birds in his picture because he could *“hear some birdsong outside”* (C2:130). Then, in the eighth session, he included a bell in his picture (see picture opposite) that he had heard during the session (C2:176).



Other experiences of sounds were mentioned during the final interview, following the last mindfulness practice. Barbara mentioned hearing her heart beat (B2: 325), feeling her "*belly go in and out*" as she breathed and hearing herself breathing (B2:423), the clock ticking (B2:419) and the wind blowing (B2:421). Barbara appeared not to be getting distracted by the sounds, and had been able to maintain open awareness of a range of experiences in the present moment, not only the sounds but also physical sensations.

Fiona found herself becoming distracted by some sounds. She explained that she had heard "*people chatting*" (F2:278) and then she thought to herself "*what did he said*" (F2:280). Although hearing sounds may be considered part of being aware of events in the present moment and they may also become distracting when the mind starts to analyse them. This appeared to have happened in Fiona's case. Nevertheless, it was possible that depending on the sounds, some may be more distracting than others.

For example, hearing people talking may be more distracting than sounds that do not include language, such as a clock ticking or the wind blowing. In other words, it is not the hearing of sounds in itself that is inherently distracting, but any subsequent thought processes that lead to becoming distracted. Consequently, to keep the attention focused on the task at hand, sounds needed to be interpreted as being nonthreatening or neutral.

School environments tend to be noisy places and it was surprising that so few drawings depicted sounds. One explanation was that the participants probably like many school children, had become accustomed to the noises around them and had learnt to filter them out to some extent. As a result, fewer observations on sounds were explicitly noticed or mentioned, even though these were also events that happened in the present moment.

5.5. Theme 3: Memories and imaginary places

Four of the six participants had memories or recollections of past events. These experiences were considered not to be mindful because the attention had not been focused on present moment experiences. Nevertheless, there is a component of mindfulness in all the drawings since the participants had to have been sufficiently aware of their thoughts in order to be able to recall them at the later stage. Most memories were about times when the participants had felt happy and they depicted themselves doing something enjoyable. However, one participant's drawing was of a recent event that had been upsetting.

5.5.1. Positive memories at the seaside

About 19 of 42 drawings were on positive experiences. Of these, five were about being at the seaside. For example, Barbara, during the fourth session, drew a picture of a beach holiday in Kenya (B2: 247) which she had remembered vividly, *"I was like feeling the sea. My feet was like wet like the sea."* (B2: 261). The body scan practice started with a focus upon physical sensations in the feet. It may have been that this triggered a vivid memory of doing this that included feeling the sea make her feet wet.

During the fifth session, Eric recalled a seaside holiday in England (see picture opposite) when he had felt "good" and had built a sandcastle (E2: 186). Eric, also had some happy recollections, such as playing with his cat in his garden (E2: 160), feeling good while on holiday at the seaside (E2: 186) and playing football (E2: 218).



Fiona, recalled times at the seaside, feeling relaxed and happy watching the sunset (F2: 130,134) and sunbathing on holiday (F2: 228). Fiona, during her

fifth session, drew a picture of the sun setting (F2: 134) at the seaside (F2: 130). Seeing the drawing made her think of times when she felt relaxed and happy and doing things that she enjoys, including going on holiday (F2: 138) and swimming (F2: 140). Later, in the ninth session she drew a picture of herself on holiday (see picture opposite). In it, she drew herself sunbathing (F2: 228), and explained that during the practice, she had been wishing to be away on holiday.



Seaside holidays are associated with happy times and one interpretation is that these memories were triggered as thoughts that were associated with happy feelings, as explained in the Buddhist Psychological Model of the mechanisms of mindfulness (Grabovac et al., 2011). This model explains that the habitual reaction to pleasant sensations is to express these in mental events, such as memories, thereby perpetuating the pleasant feelings.

5.5.2. Other positive memories

Other memories were also positive ones and unique to the individuals concerned. For example, Barbara, in the second session, recalled a time that her mother had taken her to the park when she been little and that this had been fun (B2:221). In the seventh session, she remembered her neighbour's cat (B2:319) and its kitten (B2:321).

In addition, Eric, in the fourth session, drew a happy memory of playing with his cat in his garden (E2:160) (see picture opposite) and, in the sixth session, one of his weekly football lessons (E2:228).



Overall, these positive memories indicated associations that were positive and which were consequently more likely to divert the attention away from the focus, if they arose automatically in awareness and became distractions to the chosen focus of attention, or resulted in a proliferation of related thoughts (Grabovac et al., 2011). This process has been explained in the previous section and speculation on how mindfulness may help prevent positive mental events becoming distractions to sustaining the attention on present moment experiences is explored in the discussion chapter (See Section 6.5).

5.5.3. Rumination on a difficult memory

Not all recollections were pleasant ones. During one session, Calvin found himself preoccupied about his bicycle which had been stolen the day before. He drew a picture of a ghost and his bicycle, saying *"I kept thinking about my bike and how it got nicked. I kept on*



thinking about ghosts and stuff" (C2: 180, 182). An empathetic interpretation was that the 'ghost' was likely to have represented the thief as they shared the qualities of being unknown, scary, and doing things without being seen.

Another level of interpretation was that he was struggling to understand the 'ghost'. When asked for more information, he was not able to say much about ghosts. When asked for an opinion of them, he said, *"I don't know. You hear about them. Like ghost stories."* This indicated that they were something mysterious and puzzling, related to coming to terms with the theft and the existence of thieves, who are likely to be people that he heard stories about, but like ghosts, however, knew little about them.

Calvin was also asked about any feelings related to the incident and was not immediately able to identify any and said that he had *"Umm not really"* had any, and then added *"I was kind of annoyed about my bike getting nicked."*

(C2: 184), as though suddenly realising his feelings of anger and indignation, uncomfortable feelings to bear. Consequently, the loss had been difficult to comprehend and had aroused strong feelings. Furthermore, he could have been pushing away such difficult feelings, and as a result, this had developed into rumination about the stolen bike. As a result, his attention could have become further preoccupied by the difficult thoughts themselves, thereby unfortunately perpetuating the difficult feelings.

5.5.4. Imaginary places

Three drawings were from the imagination and two were drawn at the final interview. Dudley, in the sixth session, imagined his mother, younger brother and himself doing star jumps together. He explained that this



would make him happy (D2:238) and that he enjoyed family activities, such as playing computer games together (D2:250).

Adam imagined *"a calm place in my head ... when I was lying on the grass, just concentrating on my body."*

(A2:148). He went on to draw a river (see picture on next page) and explained, *"When I see a river I feel calm."*



(A2:170) and *"I just feel calm when I see a river."* (A2:174) As he rarely gets to go by rivers (A2:174) and he had not gone to one like the one in his picture (A2:176), this was a drawing from the imagination. When Adam spoke about this, and that his mother was too busy to take him places, he sounded additionally sad. There was a sense of him putting on a brave front, seeming to be stoical and yet appearing to wish for more time with her. Again this was

not something that he wished to elaborate upon. For the purposes of having somewhere to feel calm and peaceful, imagining the river of calm appeared to be something constructive that he did in order to sustain a sense of tranquillity, possibly amidst the worries that he alluded to earlier.

Overall, Adam seemed preoccupied, with a tendency towards rumination, a reaction to events by over-analysing them in the process of trying to understand them (Segal et al., 2002). Speculation on how mindfulness may reduce ruminative thinking is presented in the discussion chapter.

Eric also had a tendency to fantasise and this was depicted in the final session, when he drew his well-developed imaginary world that he had named “Cookieland” (E2:308) (see picture



opposite). He described it as somewhere where everything is made of biscuit (E2:314). He explained that he had developed this imaginary place when he was four years old (E2: 328) and that he used this “happy place” when upset (E2:346), and by simply sitting still he would be there. However, how to return to reality seemed more of an issue and he seemed to need someone to prompt him to return to the present (E2:356).

It seemed that originally this place had been useful to retreat to when upset (E2:346), however it seemed that he was going to this place so automatically that it was difficult for him to return to the present moment. In attempting to understand his preoccupation with this fantasy world, it was useful to bear in mind that at some stage in his past, he had needed to stay at other people's homes overnight during the school week while his mother worked. It may have been that during this time it was useful to have a place to retreat to internally that felt safe and calming to him.

In the final interview, he explained that when he needs to come back to reality, something is needed to get him back into the present moment. He explained *“Well, the teacher will just go [clicks his fingers]. And I’ll be like this, huh [looks open eyed] (E2:356).* Consequently, it appeared that this fantasy world had become an automatic place to which to retreat and as a result his ability to stay present in the classroom had become compromised. Speculation on how mindfulness practises may reduce tendencies towards automaticity has been explored in the discussion chapter.

5.6. Theme 4: Awareness of the attention itself

This section focuses upon an awareness of thoughts that were included in the findings on the participants’ experiences of the mindfulness practices. Some thoughts were simply observed and served and these were depicted in drawings. Others appeared to be related to practising specific techniques for sustaining the attention on the present moment. These experiences are interpreted as being representative of an awareness of thought processes related to self-regulation or meta-awareness. Both of these kinds of awareness of thoughts could be understood to represent emerging executive attention development.

5.6.1. Detachment from thoughts and feelings

Seven of the 42 drawings depicted experiences of observing the thoughts themselves. These drawings are distinct in that they depict the thoughts as objects in themselves and as separate from the participant. They contrast to other drawings in which the participant is depicted as being within the thought or memory itself.

Dudley exemplified this in his drawings from the seventh, eighth and ninth sessions. In the one from the eighth session (see picture on next page), he depicted himself doing the sitting mindfulness practice, with his thoughts around him. He explained the drawing, pointing out the different thoughts, saying *“This one’s Basketball and this one’s football and I’m sitting down, thinking of those sports” (D2:270).* As he had also heard some singing (D2:

270), he had written “football, basketball and singing” (D2:270). He included images of clouds and a bird (D2: 272), saying that he was aware of the clouds above him and that they seemed very



big (D2: 278). His thoughts were on events in the present moment, while being aware of being separate from these thoughts.

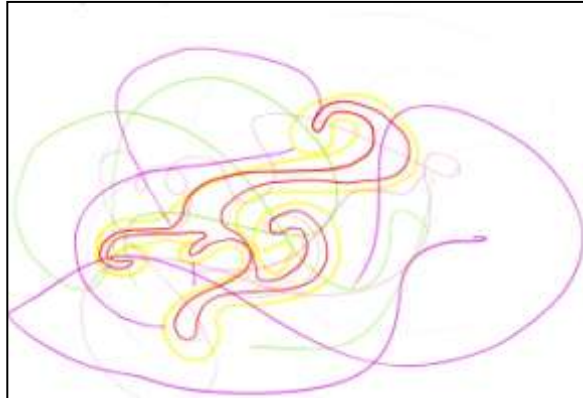
The practice of mindfulness can enable a process of ‘re-perceiving’ in which there is increased clarity and a sense of separateness when experiences of the present moment are observed (Grabovac et al., 2011; Shapiro et al., 2006). This change in perspective enables thoughts to be viewed dispassionately, and enables a reduction in mental proliferation of thoughts that would have contributed to the perpetuation of ruminative or automatic thought processes. In Barbara’s and Dudley’s cases, where their attentional difficulties relate to distractibility, this detachment could mean that they were better at choosing which thoughts to prioritise for their attentional resources, and which to filter out as distractions.

5.6.2. Mindful drawing

As with all the drawings, the participants had been asked to express their experiences that had occurred during the mindfulness-based practices. Barbara was unique in appearing to have sustained a sense of mindfulness in the drawing activity itself. This occurred during the 5th, 6th and 9th sessions of the mindfulness-based intervention. On the one hand, it could be interpreted that she simply had not been paying attention to her mindfulness practice, and so was at a loss about what to do. In such circumstances she may have simply decided to make something up. However, from her account there was only a little indication of hesitancy before starting to draw.

However, in contrast, these drawings were distinctive in being characterised by their abstractness and spontaneity. They emanated a sense of freedom of expression. During the final interview, Barbara described them as expressing her response to thoughts and images in her mind at that present moment. For this reason, they have been interpreted as drawings done in the state of mindfulness.

In the first such drawing (see picture opposite), Barbara described it as, *"I was just dreaming about colours going in and out, from my head"* (B2: 279). She expressed some of the calmness that she had experienced and how the drawing



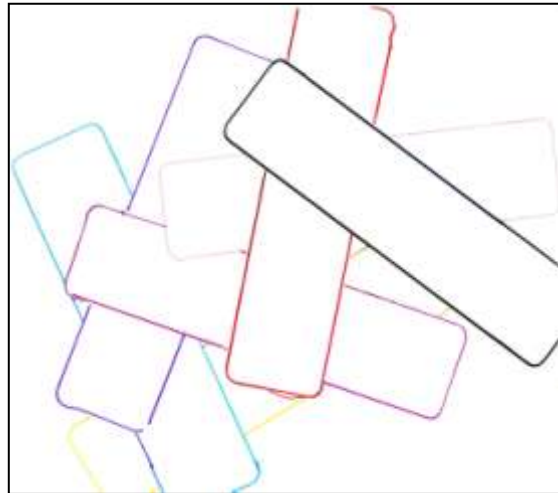
was a calming activity in itself, saying: *"I used to draw what was on my mind, but sometimes I just draw whatever I want, to calm me down."* (B2: 281). This calmness, that had been experienced, was being expressed.

She further explained that she had been thinking about colours included some that she had not particularly liked. She also noticed that the feelings that she usually associate with these colours had changed. Furthermore, this change had been of her volition and that it had been during the mindfulness practice that she had decided to make this change (B2: 285). This is an example of being aware of thoughts and feelings and subsequently, making a response through choice, rather than reacting to events. This reflects the ethical discernment component of mindfulness (Dorjee, 2010) and the role of an attitude of acceptance (Kabat-Zinn, 1994).

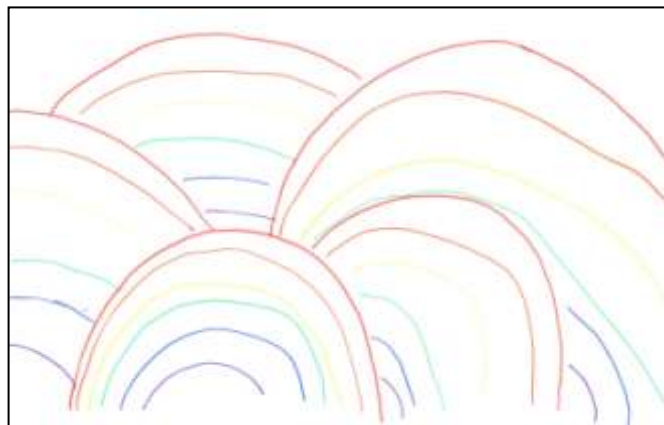
In the next mindful drawing (see picture on next page), Barbara explained that initially she had not known what to draw, saying *"Yes I was just thinking about triangles, going in my head. And I didn't have anything, but then, when I started draw.. thinking I just kept looking at triangles. Everything's triangles. So I thought I should draw the triangles. So I just thought I should draw*

triangles." (B2: 303). Although she described her drawing as having contained triangles, she had drawn around a ruler, creating rectangles.

Consequently, her use of the word "triangles" was taken to refer to these shapes in general. The interpretation is that she had been aware of her thoughts in the present moment, had accepted them and chosen to express them without judgement. Thus, she exemplified a mindful approach.



The third example of drawing from a state of mindfulness, was when Barbara drew rainbows (see picture opposite). She described them by saying: *"I was thinking about seeing loads of rainbows"*



(B2: 371) and *"I just got it in my head. I just thought of seeing those loads of rainbows in one go."* (B2: 373). In other words, this related to the mindfulness practice in that this is what she had been thinking about at the time that the practice finished and so she simply drew what was on her mind. Furthermore, that this also represents a positive experience, as rainbows are colourful and associated with the beauty in nature.

There has been emerging literature on mindfulness-based approaches that include drawings as part of the mindfulness practices. One psychosocial group intervention for cancer patients, Mindfulness-based Art Therapy (MBAT), incorporated approaches from Mindfulness-based Stress Reduction (MBSR) with aspects of Art Therapy (Monti et al., 2006). It aimed to facilitate the development of self-regulation through kinaesthetic and visual

approaches, rather than verbal ones. Another intervention, the Holistic Arts-Based Group Program (HAP), teaches mindfulness to children through art-based activities, aiming to develop resilience (Coholic, 2011). Both approaches involve creating art work through exploring present moment experience and developing self-awareness. One interpretation was that Barbara's drawings were a creative expression of internal thoughts and emotions during the process of drawing itself.

5.6.3. Barbara: Counting the breath

Some participants described how they had made a deliberate effort to engage their attentional skills upon events in the present moment. Three of the drawings depicted this.

For example, during the eighth session, Barbara drew a picture (see opposite) of herself counting her breath with a big smiley face next to it that represented feeling happy. She explained that she was



using the technique of counting the length of the breath that had been taught during the MBAT intervention. She said, "*I just felt like singing and so I just thought of humming at bit and then in my thought I was counting to ten*" (B2: 351). Practicing the technique enabled sustaining the attention on her breathing and with "*trying to make me concentrate more*" (B2:361).

Furthermore, the humming helped to relax her in a way that was calming and conducive to concentrating. In this way, she could close her eyes to relax without falling asleep (B2:357). Although this technique was taught to the whole group, Barbara was the only one drew about it and this possibly reflects more developed skills in this practice.

In her final interview, Barbara described ways counting her breath, saying that she counted up to five on the inhalation and then downwards from eleven on the exhalation (B2:353). This is her interpretation of the "7/11" breathing practice that was introduced to help sustain attention on the breath. She explained that counting helped her mindfulness practice (B2:355) by facilitating concentration (B2:357), helping her to stay alert (not to fall asleep) and making her concentrate more (B2:361). These techniques were taught in the intervention. She also explained that when she tried to focus on her breath, her mind "*just starts wanting to sink and go to sleep*" (B2:429), indicating that she recognised that drowsiness was counteractive to her paying attention. To help herself stay alert, she opened her eyes slightly (B2:431).

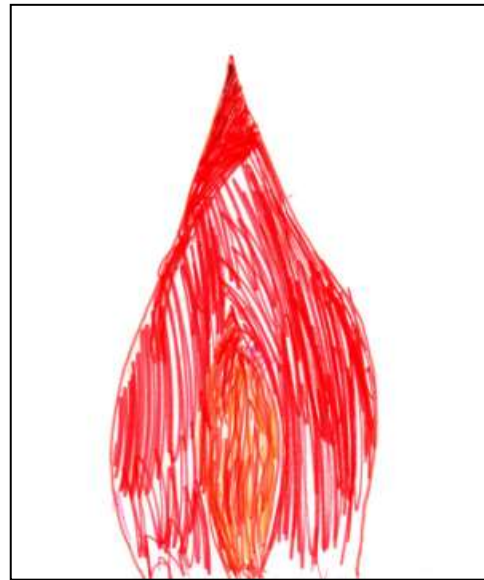
Consequently, Barbara was able to use the counting to support the attention to be sustained on the breath, thereby cultivating her attentional skills. Furthermore, she regulated her alertness, by imagining singing (B2:425) or thinking of the image of the smiling face, she was able to reduce feelings of restlessness and induce a calming effect. However, if she was too relaxed, as in the second case, she opened her eyes to support herself in staying alert.

Overall, she was able to sustain her attention on present moment physical experiences, including hearing her heart beat (B2: 325), and feeling her "*belly go in and out*" as she breathed, hearing the sounds of herself breathing (B2:423), the clock ticking (B2:419) and hearing the wind blow (B2:421). She seemed detached from her thoughts, saying "*my head was just thinking about cats and kitten*" (B2:325). Consequently, her personalisation of the mindfulness practices appears to have helped cultivate mindful awareness.

5.6.4. Calvin: The flame of attention

Calvin was another participant who spoke about explicitly developing attentional control. During session 6, Calvin drew an image of a candle flame (see picture below), describing it as representing awareness of his thoughts or ability to concentrate and how this fluctuated and faded away at times.

He said, *"I think it was on like your thoughts or your concentration. So a candle is burning. It flickers and stuff. And then after a while it goes out."* (C2: 144). His concentration gets weaker and weaker, as the flame gets dimmer and dimmer (C2: 148) and eventually goes out (C2: 15). His concentration eventually disappeared completely (C2: 154) and he was unsure about how to sustain or strengthen it (C2: 161) and



said, *"I think it was on like your thoughts or your concentration. So a candle is burning. It flickers and stuff. And then after a while it goes out."* (C2: 144). Once it had gone, he could restart it by choosing to *"light another match which kind of starts concentration again"* (C2: 156).

Later he said that he felt that this picture was the one that best represented his experiences of mindfulness (C2: 245), because the flickering of the flame reminded him of his thoughts (C2: 247). His thoughts were on the process of sustaining his attention itself. He chose this metaphor himself, as it was not one that had been used during the mindfulness-based intervention.

Using this metaphor for an awareness of his capacity for paying attention, he described that it tended to get weaker and weaker, as the flame got dimmer and dimmer (C2: 148) and eventually goes out (C2: 15). So his concentration eventually disappeared completely (C2: 154) and he was unsure about how to sustain or strengthen it (C2: 161). Once it had gone, he could restart it by choosing to *"light another match which kind of starts concentration again"* (C2: 156). Later he said that he felt that this picture was the one that best represented his experiences of mindfulness (C2: 245), because the flickering of the flame reminded him of his thoughts (C2: 247), thoughts that were on the process of sustaining his attention itself.

At the final interview, Calvin described his capacity to control and regulate his attention further, using the metaphor of a flame to describe this. If this 'flame of control' was small, then he would become unable to control his attention, and manage distractions and his focus would be lost (C2:259). He was not sure what helped him to focus or make this 'flame of control' grow, but was aware that his attention varied daily (C2:230). At the final interview, Calvin explained that he felt a bit sleepy (C2:213), mentioning that he had little sleep the previous night, having tried to sleep in his hammock without much success (C2:221). He also mentioned that it was more difficult to concentrate when he had a lot on his mind (C2:235) or was annoyed (C2:237).

Such metaphors were useful if they enabled the communication of complex ideas and the sharing of experience (Shinebourne & Smith, 2010a). In the interpretative analysis, metaphors enable meanings to be made more explicit, as they provide a link between the experience of abstract ideas and concepts and the need to communicate the experience of this. In this research, Calvin developed his own metaphor for the flame that controlled his attention and this enabled communication on the executive control of attention to be explored in a way that more accessible to him and that related to his experiences.

5.6.5. Eric: The bird and the breath

Eric developed techniques to stay in the present moment by integrating aspects of his fantasy world into them. In this way, he was able to approach the practice with a positive attitude while at the same time focusing his attention upon his breath.

In the eighth session, he imagined himself as a bird flying (see picture opposite), with the additional detail of having a worm in its mouth (E2: 240). The



imaginary flying aspects helped him to be reminded of his breathing (E2: 252). Furthermore, hearing the sound of his breath reminded him of flying (E2: 254). So in this way, by imagining himself as a bird flying this helped him sustain his concentration on his breathing (E2: 261). He had used his imagination to cultivate an attitude that supported him in sustaining his attention upon the present moment experience of breathing.

It appeared that in order to really engage with the mindfulness practices and techniques that are taught, the participants needed to personalise them. One way to do this appears to be by using imagery or metaphors that are meaningful to themselves. Another factor was that the participants realised that developing control of their attentional processes was something that needed to be practised and which took effort. Buddhist psychology explained that to master the ability to concentrate involved learning how to intensely focus the whole mind towards a single focal point, with strength and energy in the concentration itself (Gurantana, 2009). In other words, they began to consciously develop and use strategies to reappraise mental events. Such top-down processes to facilitate attentional control tend to be used by those new to mindfulness (Jha et al., 2007). Further elucidation of how mindfulness may develop attention skills is speculated upon in the discussion chapter.

This section presented an interpretation of the children's experiences of mindfulness, including those arising from awareness of feelings of being calm, peaceful and relaxed and present moment experiences of body sensations, sounds and the content of the attention itself. There were also more mindless experiences, including daydreams and recollections. The next section aims to further develop an understanding of these experiences by presenting an interpretation of any overall progress in attentional skills that appear to be related to participating in the MBAT intervention. It considers how the participants may have learnt to sustain their attention on the present moment.

Summary of the chapter

This chapter has presented the IPA analysis of the content of the interviews, describing the children's experiences in terms of four themes. It combined an empathetic understanding of the participant's experiences with research on neuropsychology, the psychology of attention and theories on how mindfulness works. The next chapter discusses the research.

Chapter 6: Discussion

Overview of the chapter

The objective of the research had been to explore children's experiences of mindfulness to help develop their attention skills. This chapter discusses the outcomes of the research based on the children's views as expressed in the interviews.

Section 6.1 focuses on the main research question: What are these children's experiences of mindfulness?

Section 6.2 considers how these children's levels of mindfulness may have changed as a result of their participation.

Section 6.3 explores how the children might apply the mindfulness practices that they have learnt

Section 6.4 examines the children's views on how to teach mindfulness to other children.

Section 6.5 speculates on the influence of mindfulness on distractibility, rumination and the automaticity of daydreaming.

Section 6.6 critically evaluates the methodology, using the criteria for quality qualitative research outlined in the Methodology chapter and discussing the role of the researcher.

Section 6.5 considers the implications of the research for educational psychologists, including using mindfulness-based interventions in schools.

6.1. What are these children's experiences of mindfulness?

This section considers the children's experiences of mindfulness. These have been covered in detail in the previous chapter and are summarised here.

6.1.1. Experiences of feeling calm, relaxed, happy and confident.

Overall, these children's experiences of mindfulness were positive: calming, relaxing and happy and, for one participant at least, supportive in the development of her self-confidence. Due to the experience of mindfulness being calming, there was a sense that practicing mindfulness could be useful in addressing issues with anxiety and this was confirmed by the literature on using mindfulness to support children with anxiety difficulties (Semple & Lee, 2008). However, it was emphasised that the aim for mindfulness was not relaxation, but to develop a state of mind that was conducive to psychological and cognitive flexibility (Chaskalson, 2005).

6.1.2. Experiences of physical sensations and sounds.

Most participants' experiences of mindfulness also included an enhanced awareness of physical sensations and sounds, such as the heart beating, movements of the breath and sounds from around the school. Some experiences were individualistic. For example, Calvin felt dizzy and spinning sensations during his first few sessions. Later, this abated and he felt a deeper awareness of his breathing. Dudley experienced many things around him and this reflected his difficulties with getting distracted. Barbara and Calvin experienced feeling more alert and energised following the practices.

Only a few participants had mentioned noticing the sounds around them when asked about their experiences and this may be due to them becoming accustomed to the noises in the school environment.

6.1.3. Experiences of memories and imaginary places.

Two thirds of the participants expressed experiences of recalling past events and depicted these in their drawings. Nearly all such drawings were on

positive memories, including five on being at the seaside. A couple were on fantasy places, including one by Adam in which he imagined himself being by a calm river and another in which Eric depicted a well-developed fantasy world that often preoccupied his thoughts. Calvin had a drawing that related to a recent unpleasant event that preoccupied his thoughts that session. Such experiences were examples of more mindless occasions, when the attention had been unable to focus on the present moment.

6.1.4. Experiences of awareness of the attentional itself

Some experiences appeared to indicate the development of meta-cognition, the awareness of the attention itself. For example, participants experienced changes in their relationship to their thoughts, in terms of becoming more aware of and of being detached from them, thereby perceiving them from a fresh perspective. Furthermore, Barbara had been unique in being able to sustain a mindful approach into the drawing activity itself.

Included in this category were strategies that participants described having developed to improve control of their attention. For example, Barbara counted her breath and Calvin created the metaphor of a flame to represent his attentional control. Eric imagined being a bird with flying movements that reminded him to focus on his breathing. In these ways, the participants were not only aware of the content of the attention, but also of top-down processes to enable controlling the focus of the attention itself.

This last category of experiences of mindfulness is especially salient as it encapsulates states of mindfulness, beyond initial states of mindfulness of the body and feelings, to include state mindfulness of the mind itself (Analayo, 2010; McCown et al., 2010).

Overall the research produced a narrative of children's experiences that had occurred during the mindfulness practices themselves. This was done through interpretative phenomenological analysis of their verbal accounts, prompted by referring to drawings produced during the MBAT intervention.

6.2. How do children's levels of mindfulness change as a result of their participation?

Through participation in the intervention, the participants had been provided with the opportunity to practice mindfulness. As explored in the literature review, some studies have indicated that practicing mindfulness has been associated with increased attentional skills. Consequently, the research explored the possibility of changes in levels of mindfulness using the CAMM questionnaire. This was done both quantitatively and qualitatively.

6.2.1. Quantitative results using the CAMM

The quantitative results were found to be insignificant. While this may have been unsurprising due to the sample size being small, there was also heterogeneity within the data. Overall, four of the participants' levels of mindfulness decreased while for two of them, it increased. Three possible reasons for this are considered.

Firstly, the responses may not have accurately reflected their levels of mindfulness due to the language skills of participants. The CAMM had been used with children between the ages of nine and eighteen, and evaluated with a sample of 606 pupils (62% girls, 81% Caucasian) with an average age 12.8 years (Coyne, Cheron, & Ehrenreich, 2008). The participants were all aged nine which is at the lower end of this age range. Furthermore, their language skills may have been less developed than that for which the questionnaire was designed. If the language in the questionnaire was not fully understood, this may have reduced the accuracy of their responses.

Since the implementation of the research, this version of the CAMM has been further developed and validated (Greco et al., 2011). Greco, Baer and Smith (2011) applied this new measure on larger sample sizes to obtain evidence on the use of this new version for assessing mindfulness skills in children and adolescents. This version is shorter and appears to be easier to complete and may therefore be more accessible to participants.

Secondly, there may have been difficulties with the children's level of self-reflection to be able to answer the items accurately. As a measure of trait mindfulness some awareness of tendencies in acting, thinking and feeling in daily life is required. Developmentally, the children may not be sufficiently self-aware to do this accurately. Furthermore, even if the mindfulness training was able to increase this awareness, this may make them become more mindful of times when they lack mindfulness. This would result in levels of mindfulness being reported as having been reduced when overall, they may have improved, at least in terms of there being more frequent experiences of state mindfulness.

One remedy for this would be to use a more objective measure of attentional skills, such as the Attention Network Test (ANT) (Fan, McCandliss, Sommer, Raz, & Posner, 2002). The potential use of this is discussed in section 6.7.2.

Thirdly, there are a number of issues with self-reports of mindfulness (Grossman, 2011). These include lack of evidence that such reports are accurate in measuring traits of mindfulness that reflect actual behaviour. In summary there are many reasons why the data from the CAMM may have lacked homogeneity, let alone statistical significance. The use of a more sensitive or objective measure of mindfulness or attentional skills may have been more effective in clarifying any quantitative changes.

On the other hand, there were qualitative indications that the children's understanding of mindfulness had changed through the course. These included changes in perceptions of mindfulness, when their responses from the initial and final interviews were compared. There were the participants' views on how they may have changed. These are now discussed.

6.2.2. Changes in how mindfulness was conceptualised

At the initial interviews, the participants were asked about what they thought mindfulness was about and why they may want to learn mindfulness and participate in the intervention.

Overall, none of the participants had any previous experiences of mindfulness. While half of the participants were completely unsure about what mindfulness may be about, the other half thought that it had something to do with concentrating. For example, Barbara said: *“Hard to know. I don’t really know. It’s kind of in my head, but I don’t know how to say it properly. It is kind of like trying to help people to concentrate well. And to get them to concentrate and to do more stuff and so, instead of doing stuff that you’re not supposed to do.”* (B1:18,20) In other words, while she was unsure, she had a idea that it related to learning to concentrate better, so that more class work could be completed and distractions avoided.

Another example was when Calvin mentioned that he had been told that someone was going to do some work with him to see how well he could concentrate (C1:14). He was able to describe meditation, and said: *“Meditation is where you just think about something like for a long time”* (C1:28). This was surprisingly accurate and succinct as a definition of mindfulness meditation. In contrast, Fiona, unsure about what it was about, asked if it was to do with mental maths (F1:9-12).

Regarding their reasons for wanting to join the group, their responses were varied. Adam had wanted to try out something different (A1:158). Following his initial experience of mindfulness, he thought that it would be useful to help reduce any worrying, enabling someone to be “calm and would be ready” (A1:163) for example for a competition or contest.

Barbara and Calvin said that they wanted help with their concentration. Furthermore, Barbara wanted to improve her learning and to concentrate better in class, and said, *“They tell you that you’re going to do stuff to get my learning to be good and stuff.”* (B1:2. She also said she wanted to participate *“Because I want to concentrate well on my class and do more stuff”* (B1:28).

Calvin also recognised that he had difficulties concentrating and thought it would be a good idea to learn how to improve this (C1:120). In contrast,

Dudley wanted to participate because it might be “*fun*” (D1:14), although after the initial practice, he said it may help him develop “*more attention*” (D1:188).

Fiona and Eric did not express any views on their reasons for learning mindfulness and it had been challenging to get Fiona to say much at all.

At the final interview, all the participants were asked to describe mindfulness and their views about it. Two participants described mindfulness in terms of focusing on external events. For example, Adam considered mindfulness to be a practice of learning to focus on what one was doing and stay focused instead of thinking of other things easily instead of forgetting about the task (A2:3). Eric explained that through the mindfulness-based intervention he had learnt skills to do with “*focusing on what is around you*” (E2:19). However, when asked specifically what mindfulness meant, he was unsure (E2:410).

Other participants used the concept of concentration. For example, Barbara described mindfulness as practices to encourage them to “*concentrate well*”, focus better on their work and look at the teacher instead of looking at others in the class (B2:10). Calvin described mindfulness as “*practising concentrating hard*” (C2:4) and “*learning to focus your mind*” (C2:6). He had found it enjoyable to practice and liked “*focusing on the spotlight on stuff*” (C2:8). Dudley said mindfulness was “*to make us concentrate*” (D2:20).

Fiona described mindfulness as being about “*using your brain*” (F2:22), “*thinking*” (F2:24). She gave an example of one practice that involved “*being quiet and moving around doing the bell*” (F2:28), referring to an activity during which the singing bowl was passed around and they took turns bringing it while they all this and to its sound. So overall, all of the participants were able to explain what mindfulness involved. They could describe mindfulness in terms developing concentration and focusing on present moment events.

In summary, at the start, none of the participants had any previous experiences of mindfulness. There was limited understanding of mindfulness as a concept, only that it had to do with developing concentration skills. In

contrast, at the final interviews, the participants had a more detailed understanding of mindfulness and described it in terms of concentrating on events in the present moment.

In critiquing these findings, the five dimensions of mindfulness (Dorjee, 2010) – intention, bare attention, attentional control, wholesome emotions and ethical discernment (see literature review) - were considered. In this research, it was found that the participants conceptualised mindfulness predominantly as a form of attentional control. While other dimensions were not mentioned explicitly, their approach indicated that ‘intention’ and ‘attitude’ were included in their understanding of mindfulness. In conclusion, it may have been more useful to provide teaching on all aspects of mindfulness.

6.2.3. Changes expressed through the content of the drawings

Changes in levels of mindfulness were also expressed through drawings which depicted various stages along the journey of learning to practice mindfulness. When considering the sequence in which the drawings were made, there appears to be a pattern.

In the early stages of the course, there was more focus on concrete experiences, such as body sensations (Section 5.3.1 Awareness of internal body sensations). Then, during the intervention, when the mindfulness practices may have been longer, the drawings depicted experiences of memories and imaginary places. Such content reflected that their focus on the present moment had been lost in being distracted by thoughts and recollections.

Later in the intervention, when the participants would have had more experience with the practices, a few participants began to express experiences that appeared to indicate an emerging objective perspective on their thoughts (Section 5.6.1 Detachment from thoughts and feelings). They also drew about personalised techniques to control their attention (See sections 5.6.3 (Barbara: Counting the breath), 5.6.4 (Calvin: the flame of

attention) and 5.6.5 (Eric: the bird and the breath)). Consequently, the sequence of the drawings indicated possible changes in the participants' attentional control and potential evidence for improved executive attention.

6.2.3. Individual accounts of having changed

The participants also mentioned ways how they thought that they had changed or skills that they had learnt. For example, Adam spoke being able to cultivate calmness within himself by thinking about a river that he associated with such feelings. Barbara mentioned numerous changes, including that she had become better able to focus in class, be less distracted by peers, follow instructions and thus better understand her class work. Furthermore, she had felt confident enough to teach some practices to friend, thereby helping her to concentrate in class also and calm down when upset. In addition, Fiona mentioned that she had become less shy.

Not all the participants appeared to have developed their skills sufficiently to be able to transfer them to the class setting. While Dudley's and Eric's drawings had depicted emerging improvements in their attentional skills, there was no evidence had been available that this had transferred into the class. Further training in mindfulness that is tailored to support their individual needs with regard to develop attentional skills may be useful in this. How mindfulness practices may be developed to address specific attentional is speculated upon in section 6.5.

Overall, the qualitative evidence indicates the potential of this intervention to support these participants in developing their attentional skills. However, without a control condition, and further detailed studies on states of mindfulness and the experiences of the participants themselves, it is not possible to determine to what these changes may be attributed. Consequently, larger, quantitative studies are required as well as qualitative ones that enable an exploration of in-depth experiences of state mindfulness.

6.3. How might the children apply the mindfulness practices that they have learnt?

The research question requested a consideration of the children's views on the value or use of mindfulness in various settings, including the classroom. This question was addressed by considering the participant's views on how the mindfulness practices may be useful.

At the initial interview, it was explained that the intervention was about developing attentional skills. However, only two participants were clear that they wanted to improve their concentration. Thus, most of the participants began the intervention with vague ideas about what they wanted out of the intervention. Consequently part of the MBAT intervention was to encourage the participants to think about the purpose of the mindfulness practices. This section outlines the ways in which the children considered applying the mindfulness practices.

6.3.1. Helping with concentration

Firstly, Adam explained that the practices had helped him to concentrate better on his work and ignore distractions. He said: *"It has helped me concentrate better on my work and to ignore distractions. And helped me to ignore distractions and to concentration on the subject"* (A2:13). He also remembered a time when he had been able to do some Mathematics work quicker (A2:146). Adam thought that what was covered in the MBAT intervention would be useful in helping others to calm down, particularly when angry at someone (A2:188). Overall, having had first-hand experience of the calming and relaxing effects, it appeared that Adam had realised the potential use of this and suggested that mindfulness practices could help to calm down feelings of anxiety or anger. Furthermore, he realised the potential of bringing to mind a positive image (the river) to support skills in regulating his emotions.

6.3.2. Focusing on the teacher

Secondly, Barbara had developed much enthusiasm for the practices, both in class and at home. Consequently, she had taught them to a friend. She had been trying out the mindfulness practices in class and explained, *"I try to concentrate well and looking at my teacher, instead of talking to my friends."* (B2:16). She mentioned that prior to the intervention, she talked more in class but now focused on her work and had become better at completing tasks and listening to the instructions at the time they were given (B2:24). Although, it was not possible to validate this without more objective information, she was particularly confident that she had improved her behaviour in class.

6.3.2. Sitting still

Barbara also used the practices to help with sitting still, and said, *"Now, whenever I sit down, I always do my legs and my body feels something like doing, walking around the field and stuff. But usually I didn't have to think about that, but now I do"* (B2:333). She was used this increased body awareness to help with sitting still even when she wanted to be more active.

6.3.3. Calm communication

In addition, Barbara used the practices to help her family relationships. She was now more involved in household *"chores"* (B2:153), such as cleaning her room and looking after her younger sister. As a result, she has been happier, finding the chores to be *"fun"* (B2:157). The practices had helped her to calmly make the request to be more involved in housework (B2:165), be more patient with her sister and be better able to listen to her mother (B2:457).

6.3.4. Helping peers to focus and stay clam

Barbara had also helped one of her classmates to concentrate better in class, thereby encouraging her to talk less. She explained that she had taught her friend how to keep still and focus on physical sensations in the body, such as the breathing (B2:58). She had taught her the practice on mindful eating (see Appendix D). For this, raisins had been used in the intervention (B2:62), however, she used an apple instead of raisins as this was what had been

available at the time (B2:64). She was certain that her friend understood what to do (B2:42) and explained that now, when upset, her friend looked for a quiet place (B2:48) to use the practices to calm herself down (B2:50).

6.3.5. Flexibility for playing sports

Dudley and Eric explained that they had found the mindful movement practices helpful. They explained that they thought that these mindfulness practices could be useful to develop greater flexibility to help them to be better at playing sports.

6.3.6. Personalising the practices

In terms of practicing mindfulness, the participants expressed how they had applied the practices in their own way, to help themselves to engage with them. These were discussed in the analysis chapter and included, for example, how Barbara used the technique of counting her breath to sustain her attention on her breath. Another example was how Eric had imagined being a bird to support his focus on his breath.

In summary, by the final interview, the participants had developed their views on how the mindfulness practises could be used. Three of the six spoke about how they had used the practices to help them to pay attention in class. Bearing in mind that this is how the mindfulness-based intervention was originally promoted, this emphasis on the development of attention skills was expected partially. The participants also considered how the practices could be used to regulate their emotions even though this benefit was not explicitly promoted.

Overall, a couple of the participants expressed views on how the mindfulness practices might be applied not only in the classroom but also in regards to managing difficult emotions and maintaining positive relationships with others.

6.4. What are children's views on how to teach mindfulness to children?

The research also examined participants' views on how to teach mindfulness to children, seeking to understand the participants' perceptions of this intervention. The participants' views on teaching mindfulness were based on their responses during the final interview. Specific details were outlined in the findings chapter. Overall, they described the intervention as “fun”, “good” and “cool”. The implications for developing mindfulness-based interventions, based on the children's views, are now explored.

All of the participants said that they enjoyed the MBAT intervention. In particular, Adam described learning mindfulness as “*fun*” (A2:5) and said that he had most enjoyed the body scan (A2:7) and sitting mindfulness practices (A2:11). He had not attended the seventh and eighth sessions and explained that he had quickly learnt what he had to do and decided to simply put it into practice in the classroom to see that helped his concentration. He said “*I had seen how it works. I have seen if I had got better at concentrating*” (A2:140). Also, he had tried out some of the practices both at home and in class (A2:142), though he did not elaborate on how.

Barbara had liked the body scan and the mindful movement practices the most (B2:313). The body scan helped her thinking as she explained: “*It makes.. it actually makes us think more about stuff*” (B2:407). She also mentioned how the practices had helped her concentration, saying that in the past she had struggled and more recently had noticed an improvement in class (E2:383). She had also enjoyed drawing activities (B2:403).

Calvin, when asked about what it was like doing the MBAT intervention, said “*It was all right. It was fun.*” (C2:241) and that the body scan had worked well for him (C2:249). When asked about what he had found useful, he said, “*The spotlight. It makes it kind of easier concentrate*” (C2:251), explaining that the metaphor for the attention had helped with his concentration skills.

Dudley, when asked for his view on doing the mindfulness course, said that it had been "good" (D2:4) and that he had liked everything (D2:6), particularly the body scan (D2:8) because it been comfortable to lie down (D2:10 and 12) which was comfortable (D2:12). After the final mindfulness practice, when asked how to improve it, he said that it could have been shorter so it was not "*wasting learning*" (D2:359). Although it had been close to lunchtime and he may have been getting impatient, it may have been useful for him to know how long the practice was going to be, so that he would be better able to focus on it, instead of possibly feeling impatient. It may have also been useful to explain the value of increasing the length of the practices.

Eric described the mindfulness-based intervention as "cool" (E2:5) and had enjoyed the sitting and body scan practices, describing them as "fun" (E2:9). When asked how these practices may be applied in his life, he said that they could help him to "*be flexible*" (E2:35), referring to the mindful movement.

Fiona had liked the body scan practice the most (F2:10), because it had involved lying down (F2:16). In general, she found it "fun" (F2:284), although she was not really sure about its value to her. Nevertheless, towards the end of the interview, she mentioned, "*I was much more shy when I first come*" (F2:272). In the context of the interview, she seemed to be explaining that it had become easier to do the mindfulness practices because she had gained in self-confidence.

Here is a summary of the main implications for teaching mindfulness to children, based on the children's views:

6.4.1. The body scan practice was most popular

They all identified the body scan as their favourite practice, saying that it was the most comfortable and in this way, it enabled better self-reflection. Two, Eric and Dudley, especially enjoyed the mindful movement (yoga) practices. Consequently, future mindfulness-based courses could use the body scan

practice more extensively. The mindful movement practices are a useful supplement for those who need additional support to redirect their attention into exploration of sensations arising from the physical body. Therefore, overall, participants would be supported in cultivating their body awareness and thereby supporting the development of their attention skills.

Practices that engage the physical body may be useful in making the mindfulness practices more accessible, because they involve more concrete experiences. One cognitive psychologist, Piaget, theorised that between 7 and 11 years old, children can only formulate hypotheses or conduct abstract reasoning unless they have prior concrete experience of these mental operations (Fontana, 1995). Therefore, it may be that the participants are only able to conduct the abstract thought required to develop mindful awareness once they have had related concrete experiences. Consequently, the teaching of mindfulness to children with attentional difficulties may be made more accessible by using practices, such as the body scan, that focus on cultivating mindfulness through the experience of body sensations.

6.4.2. Metaphors for mindfulness were useful

Metaphors can be useful for communicating intangible and abstract ideas (Shinebourne & Smith, 2010a). Calvin explained that one metaphor in particular, the "spotlight of attention", had helped his understanding. Ways to use of metaphors in explaining abstract aspects of attention could be further developed. Furthermore, participants could be encouraged to develop their own metaphors, as Eric had done with the flying bird.

Some research suggested the effect of the interventions relied upon the attitude, including as self-compassion, with which the practices were approached (Kuyken et al., 2010). Consequently, metaphors for an accepting, kindly attitude to practicing mindfulness would also be useful.

6.4.3. Long practices can be challenging

During the final interview, Dudley remarked that he thought that the practices could have been shorter. One interpretation was that he had struggled with longer practices.. There was a balance to be struck between making the mindfulness practices short enough to keep the participants engaged and yet long enough to provide them with sufficient challenge to further develop their skills. The length of the practices was gradually increased as the course progressed and a judgement was made on when to end the practices based on observing the participants for any signs of restlessness. This feedback implied that feelings of boredom or discouragement may arise as practices become longer and more challenging. Consequently, it is important to encourage perseverance at such times.

6.4.4. The choice to opt out may be needed

The course was well attended by nearly all of the participants. Adam was the only one who opted not to attend a few of the sessions, explaining that he had needed something different to meet his needs. However, a deeper level of interpretation was that he had withdrawn due to finding the sessions demanding. This could have been because he had become more aware of his sad feelings which were challenging to deal with. Consequently, how to better support participants to manage difficult feelings may need to be more clearly addressed in future interventions.

6.4.5. Participants can mentor their peers

One participant taught some mindfulness practices to a friend to help her to concentrate better in class, talk less and manage difficult feelings. What was taught was the initial part of the sitting mindfulness practice. Furthermore, this teaching of the mindfulness practices appeared to be effective. In effect Barbara had focused on teaching the more concrete aspect of the sitting mindfulness practice, the posture, and this was a useful starting point that enabled one to sit still, be alert. She also taught a simplified practice of focusing the attention on physical sensations, such as the breath, and the mindful eating practice, using an apple that was available.

This indicated that teaching mindfulness can be simplified so the essence is easier for children to understand. This could include using resources that are familiar to the children and using peer mentoring. Successful teaching of mindfulness to peers was described in another study (Singh et al., 2011).

6.4.6. Quiet spaces are needed for practicing

In the school setting, one participant taught her friend some mindfulness practices and mentioned that at times, her friend had needed to find a quiet place to practice in order to be able to calm down. This school had a designated quiet area in the play ground, and possible further spaces, such as in the building, were needed. In my experience, other schools vary in their provision of access to quiet or private spaces and this could be improved.

6.4.7. Support needed for developing a personal practice

During the MBAT intervention, the children were encouraged to practice at home. Five of the six participants spoke about this. Firstly, Adam spoke about doing the body scan at home, to develop an awareness of how his body felt (A2:132). He said that he practiced whenever he remembered (A2:134). However, it was unclear to what extent he had done so.

Barbara also practised at home, including getting parental permission to have the sitting room to herself, switching off the television and lights, sitting down and practising by counting the breath (B2:477). She used this when bored or needed energising (B2:479). She said that she would have preferred to have had homework that was monitored by parents (B2:518). She also found the poster (for prompting home practice) useful (See Appendix D).

Thirdly, Eric described his attempts "*I've tried sitting mindfulness at home.*" (E2:23) and that he had enjoyed it (E2:25), although this had been hard for him to do (E2:29). He also tried following the instructions on the poster that had been provided (E2:27). However, he found practising difficult and had felt somewhat discouraged, and said "*I am never going to get it*" (E2:33).

Although there was encouragement to practice there was no monitoring of this during the course. Nevertheless, five of the six participants mentioned, when prompted, that they had tried to perform activities mindfully in their own time.

Finally, Fiona mentioned having practised the "*lying down one*" (F2:100), the body scan practice. She explained, "*I tell my sister to be quiet and then I just lie down. And then I just think about things*" (F2:102) and did not elaborate further. She had also practiced eating more mindfully, and said, "*when I am eating lunch, I just drink my drink and I can feel it go down my body*" (F2:306). With such detail, it seems likely that she practiced mindful eating.

Overall, the participants may have benefitted from support to practicing at home as personal practice is likely to help make progress (Vettese et al., 2009). Daily, intense practice, including short-term meditation training (five consecutive days of 20 minutes of practice) was found to lead to significantly better attention and emotional regulation (Tang et al., 2007). Consequently, support for developing regular personal practice may have been beneficial.

6.4.8. Parental involvement

While Dudley did not appear to have practised at home, he had expressed an interest in his family practicing together. In one of his drawings, he depicted him and his family doing some mindful movement. He also said that practising with his family would be something that could him happy. One implication is that parents could have been more involved. In other studies involving mindfulness for children with attentional difficulties, parental involvement was integral to the intervention and parents and children practiced together (Singh et al., 2010; van der Oord et al., 2012).

In summary, the participants' views on teaching mindfulness included preferences for the body-scan, using metaphors, having support for home practice and involving family. The MBAT intervention has been further developed to incorporate such feedback.

6.5. Speculation on attentional difficulties and mindfulness

The research focused on exploring children's experiences of mindfulness, using interviews and their drawings in this process. Some of these descriptions could be said to capture the lived experience of state mindfulness as well as the participants' difficulties with aiming and sustaining attention. While the research was unable to find significant changes in trait mindfulness (using the CAMM questionnaire), it was more successful in producing descriptions of experiences, including those of state mindfulness. In previous studies, qualitative descriptions have contributed to developing an understanding of the underlying mechanisms of mindfulness (Kuyken et al., 2010). Furthermore, there is evidence that repeated experiences of state mindfulness can develop trait effects including those that improve attentional skills (Jha et al., 2007). Consequently, this section considers how difficulties with attention, such as those described by the participants, may be ameliorated through mindfulness training.

Three main types of attention difficulty are proposed: distractibility, rumination and automaticity. This is based on an understanding of the neuropsychological model of attentional networks (Posner & Rothbart, 2007) and Buddhist psychological theory (Grabovac et al., 2011). Research indicates that mindfulness practices may benefit children and young people with attentional difficulties, including ADHD (Flook et al., 2010; Singh et al., 2010; van der Oord et al., 2012). This section discusses how mindfulness practices may potentially address each of these types of attentional difficulty, using the experiences of the participants to illustrate this.

The literature review introduced the cognitive neuropsychology of attention. Attentional difficulties can be understood through characterising attention as having a limited capacity to process information (Styles, 2006). Only one response (decision) at a time can be processed and consequently, this capacity needs to be managed. As described in the literature review, this attentional capacity arises from a system of neural networks, made of three aspects: 'alerting', 'orienting' (or 'selective') and 'executive' (or 'conflict')

attention (Posner & Rothbart, 2007; Sinclair & Taylor, 2008). The attentional networks develop through the interplay between genes and psychological and social factors and result in individual differences in attentional skills.

The alerting aspect of attention is involuntary and cannot be controlled. In contrast, orienting (or 'selective') attention involves making an effort to purposefully direct the attention towards something (Smalley & Winston, 2010). Accordingly, there is a possible choice as to upon what the attention is focused. The third kind of attention, executive (or 'conflict') attention requires sustaining attention on a selected focus, while inhibiting responses arising from distractions (Posner & Rothbart, 2007). Essentially, it involves managing and resolving information from different sources, including thoughts, feelings and responses, and thereby regulating the alerting and orienting aspects of attention. This theoretical model proposes that attentional difficulties, such as tendencies to be easily distracted, ruminate or daydream, arise from lack of sufficient development of executive attention.

6.5.1. Discussion on distractibility

Distractibility was experienced predominantly by Barbara and Dudley. Barbara explained that "*sometimes the teacher tries to tell one thing and then I forget about it and he starts going into another thing then I remember one but not the first part*" (B1:57) and that she tended to focus on her friends rather than on the lesson. Dudley also mentioned finding it difficult to pay attention to only one thing at a time, including being distracted by "*people talking*" in the class (D1:64). During his first mindfulness practice, Dudley noticed a significant amount of detail in a relatively short space of time, indicating difficulties with focusing attention and being open to distractions.

This model explains distractibility as arising from an attentional system that is excessively alerted, such that it orientated to receive information from a range of sources such that there is more information than can be processed successfully. Consequently, the capacity of the attention rapidly becomes diminished and the individual struggles to focus on the prioritised task.

6.5.2. Mindfulness and distractibility

This theory speculates that mindfulness helps by developing control over the executive attention. This is known as "effortful control" (Rothbart, 2007), the 'willpower' that essentially is the executive attentional network. Specific training in attentional skills has been found to help children develop the capacity of their attention (Rothbart et al., 2007). Practising mindfulness is one way to do this as it involves repeatedly returning or orienting the attention to specific events in the present moment (Zylowska et al., 2009). In state mindfulness, the top-down strategy of sustaining the focus on the target can help to strengthen the neural networks related to executive attention. Thus, the individual may develop traits in being better able to manage distractions (Jha et al., 2007). Since experiences affect the structure of the brain, regular and sustained practice can lead to more permanent neural development of executive attention (Olesen, Westerberg, & Klingberg, 2004).

In the research, Barbara and Dudley had different ways of applying the mindfulness practices differently. Barbara realised that her distractions related to peer relationships (B2:127) and decided to teach them mindfulness practices so they could all be better able to focus in class and consequently become less likely to distract each other. She thought that the practices had helped her concentrate better, including in class (E2: 383).

At the final interview, Dudley appeared able to notice his thoughts in a detached way, being able to observe them without being distracted by them (see section 5.6.1 Detachment from thoughts and feelings). This represents the emergence of metacognitive skills for focusing the attention on thought processes without becoming distracted by them. It is possible that he had chosen to reappraise thought processes as more neutral, a top-down strategy. It is also possible (though less likely) that he had developed sufficient receptive awareness to observe them in a more detached manner, a bottom-up strategy. Top-down and bottom-up strategies for emotional regulation may operate in parallel (Chiesa et al., 2013), although the latter are more likely to be used by experienced practitioners, once trait qualities have developed

through proficiency in top-down strategies (Jha et al., 2007). Overall, Dudley may have needed further training to develop his skills, including being able to transfer them to other contexts.

6.5.3. Discussion on rumination

Rumination appeared to be the attentional difficulty shared by Adam and Fiona. They described struggling with overwhelmingly sad feelings and wanting to avoid them. Adam described himself as having “*bad*” thoughts (A1:81), intense sadness, crying without knowing why (A1:95) and struggling with waves of overwhelming emotions. He tried to problem-solve this, “*thinking about how I’m feeling and why I’m feeling. And I’m think about what’s... what’s happened and why I’m feeling like that*” (A2:76) without success. Fiona expressed similar difficulties, explaining that she tended to dwell on sad things (F1:52) and was also unable to stop them, saying “*It just stays in my mind*” (F1:56). Consequently, Adam and Fiona both were preoccupied with difficult and automatic thoughts.

In this model of understanding attentional difficulties, it is proposed that as an effort is made to control difficult thoughts and feelings, in an attempt to rationalise or suppress them, the sympathetic nervous system becomes activated (responding to this potential ‘threat’). Thus the attentional network becomes repeatedly alerted to this perceived danger and automatically and repeatedly focuses upon these thoughts (Williams, 2010), generating repeated succession of thoughts (Grabovac et al., 2011) or rumination.

Cognitive psychological theory on mindfulness described rumination as a reaction to events by analysing them and trying to understand them (Segal et al., 2002). Rumination is likely to affect the attention by putting an additional demand on executive attentional processes and thereby increasing the likelihood of overloading attentional resources.

6.5.4. The potential of mindfulness to reduce ruminative thinking

While executive attention manages the attention overall, there are additional brain networks for monitoring, evaluating and modifying emotional reactions (Todd & Lewis, 2008), such as the mid-frontal cortex of the brain (Posner & Rothbart, 2000; Posner, Rothbart, Sheese, & Tang, 2007). Emotional regulation may happen extrinsically, for example when distress is soothed by another person, or intrinsically by consciously re-evaluating the situation and making an effort to override automatic responses (Todd & Lewis, 2008).

Mindful awareness can be used to break the cycle of rumination (Deyo, Wilson, Ong, & Koopman, 2009; Williams, Teasdale, Segal, & Kabat-Zinn, 2007). It is possible that this happens by cultivating an attitude of acceptance and kindness (a top-down process), that acts in parallel with being receptive to emotions (a bottom-up process) as they arise and unfold, moment by moment (Jha et al., 2007; Kabat-Zinn, 1994; Williams, 2010). The ruminative cycle, or proliferation of thoughts, could be minimised by alleviating the anxiety that difficult thoughts elicit and which repeatedly activate the alerting attention. Rumination may be minimised through voluntary, top-down strategies, such as reconceptualising thoughts as lacking in permanency (Grabovac et al., 2011). It may also be reduced by focusing on cultivating the positive qualities of attention, such as compassion, acceptance and kindness as this could help reduce reactivity to stress (Pace et al., 2009).

Over time, the intention would be to cultivate a mode of 'being' rather than 'doing', that is, developing traits that enable the bottom-up processes of being receptive to experiencing the present moment directly. Without the development of such traits, the tendency may be to react to emotions. 'Being with' one's experience with qualities of acceptance, enables emotional reactions to slow down and become minimised or eliminated, thereby reducing self-perpetuating, ruminative thought patterns (Coffman, Dimidjian, & Baer, 2006). With less rumination, and greater acceptance, working memory capacity may also be improved (Ruocco & Direkoglu, 2013). Overall, by

reducing the activation of the alerting system in this way, the capacity of attention that is available for conscious control may be increased.

In their final interviews, Adam and Fiona explained that while they continued to find their sad feelings difficult, they had an emerging awareness of these feelings in the present and of their habitual responses to them. Adam had noticed his efforts to stop having uncomfortable thoughts and feelings and spoke about imagining "*a calm place in my head ... when I was lying on the grass, just concentrating on my body.*" (A2:148) and imagined a river, explaining "*when I see a river I feel calm.*" (A2:170). He appeared to have developed a way of self-regulating his emotions, cultivating calmness through mindfully becoming aware of his body. Fiona also expressed having a greater awareness of herself thinking unhappy thoughts (F2:50) and getting upset with herself for this and consequently feeling further inhibited (F2:80). Fiona mentioned greater awareness of eating, saying "*When I drink my drink I can feel it.*" (F2: 308) and having improved self-confidence (F2:272).

Although these participants may have still tended to ruminate, there was a small indication of developing greater acceptance of such difficult feelings and this may theoretically reduce rumination in the longer term.

6.5.5. Discussion on automaticity and daydreaming

The third proposed attentional difficulty arises from automatic thought processes, such as daydreaming. Eric and Calvin tended to daydream. Calvin explained that he "*would start daydreaming, start doing something without knowing what I was doing*" (C1:50), finding himself doing something and only noticing his actions then. Eric explained that he did not notice his thoughts or feelings while doing something, saying "*I don't notice anything*" (E1:30). At the final interview, he revealed that he often daydreamed about an imaginary, happy place and that needed prompting to leave it (E2:356).

Daydreaming is an automatic thought process that reduces the availability of attention to perform other operations (Styles, 2006). This kind of automaticity,

being on "automatic pilot", involves acting without conscious intention or awareness of events in the present moment (Crane, 2009) and therefore represents another attentional difficulty.

6.5.6. Mindfulness and reducing automaticity

Mindfulness practices require making an intention to sustain one's attention upon events in the present moment with an approach of acceptance (Kabat-Zinn, 2005; Shapiro, 2009). In order for the present moment experience to be the focus rather than the daydream, there is an emphasis on accepting and savouring the present moment. This theoretical model proposes that mindfulness may reduce automaticity by developing the intention in staying present through cultivating curiosity and interest in present moment events. This state of mindfulness involves making a conscious choice about upon what to focus the attention, and consequently involves top-down strategies for attentional regulation (Jha et al., 2007).

During the final interview, Calvin mentioned greater awareness of moments when he was less aware and began daydreaming, and said, "*There is sometimes when daydreaming then I realise I'm doing something and I'm not really aware of what I'm doing.*" (C2: 18). He recognised his difficulty with focusing on his work saying, "*Rarely I'm totally focused on work and nothing else. Usually I'm kind of drifting off into things.*" (C2: 32). He appeared to have made a start in reducing automaticity, by being aware of times when he was not present. Furthermore, he had developed a metaphor for his attentional capacity, an 'candle flame', although he expressed difficulty in sustaining the 'flame of his attention' and preventing it from going out.

At his final interview, Eric talked about his fantasy world and mentioned becoming more interested in what was happening within and around him, "*I just like paying attention to my thoughts, thinking about people*" (E2: 62). He also seemed to have become more accepting of difficult feelings, including sad ones (E2: 126). While it was likely that he would continue to struggle with

fantasising he had also found a technique to sustain his attention on the present moment by imagined being a bird flying in rhythm with his breathing.

In summary, each of the six participants seemed to display a predominant type of attentional difficulty, such as distractibility, rumination or automaticity. The implication was that mindfulness practices need to be adapted to different types of attentional difficulties. Attentional difficulties related to avoiding present moment experiences require emphasis on cultivating acceptance, while those related to automaticity in being distracted by external or internal positive events, require training that emphasises attentional control, with acceptance. Overall, by using a neuropsychological model to explain differences in attentional difficulties, the potential of using mindfulness practices to improve the capacity of the attention was explored.

6.6. Evaluation of the methodology

Criteria for quality qualitative research, credibility, transferability, dependability and confirmability, as introduced in the Methodology chapter, are discussed.

6.6.1. Credibility

Credibility is about ensuring that experiences are interpreted authentically, fairly and accurately (Mertens, 2005). To ensure that the findings had credibility, actions were taken to counteract the potential for bias resulting from multiple roles of the researcher.

Firstly, there were issues in relation to the researcher being an educational psychologist in the school. One consequence of this was that the participants may have been hesitant to give honest and critical feedback on the intervention. However, care was taken to explain to them the value of their honest and open responses and indeed, participants did give some feedback on ways in which they had found the intervention difficult. For example, Dudley explained that he found some of the practices too long for him and that at times he thought that he was "wasting learning" time.

Furthermore, care was taken to observe the participants to determine their willingness to engage, and if there the slightest hesitancy, the options to opt out were presented to them. Indeed, this seemed to be successful as one participant (Adam) chose not to attend two of the sessions and another (Barbara) requested to opt out for one of the activities on an occasion when she was particularly struggling to concentrate.

Credibility was also enhanced through the process of triangulation, in which information from a range of sources was drawn upon. This research made use of information from interviewing the participants, the participants' interpretations of their drawings, personal reflections during the research and recordings of the intervention. This all enriched information on the context to the children's accounts of their experiences.

Using drawings to engage the participants

A high level of authenticity was assured by collecting the participants' views with a level of detail that enabled the subsequent analysis to be in-depth. This was done by providing the participants with the opportunity to draw or write about their experiences and not only to talk about them. Children are likely to benefit from access to a variety of modes of self-expression, particularly when it may be challenging to express themselves (Einarsdottir et al., 2009; Tangen, 2008).

Although participants were given the opportunity to draw, and all said that they enjoyed drawing, three of the six explained that at times they had found it challenging to express their experiences in this way. One of these three, Fiona, had struggled generally with self-expression, so the little that she drew significantly added to her account. Adam, who often produced only little class work, according to his teacher, did not draw much either. Nevertheless, during the final interview, in this one-to-one situation, there was more time for him to develop a drawing and this significantly enriched the account of his experiences. Therefore, despite some variability in confidence and ability with drawing, all were able to access this medium of self-expression.

A less frequent difficulty was with remembering the drawings themselves. Out of 44 drawings there were 4 that their creators were unable to recognise. Three of these were with the same participant, Dudley, who tended to rush the drawing activity to finish before the others. With prompting during the sessions, he would work for longer and add more detail to his drawings. It appeared that he was better at recalling those drawings in which he had invested more time. Nevertheless, considering that on average, each participant drew seven or eight drawings, it is significant that so much detail was remembered and how well the drawings worked as prompts.

It is also important to acknowledge that each drawing was a snapshot of possibly the most memorable moment within the practice. Thus, each drawing only represented a glimpse into the individual's experience of that session and provided a means by which to prompt to further recollection of the complete experience. This use of this modality of self-expression proved invaluable in facilitating the participants' self-expression, enabling the findings and their analysis to be as detailed as they were and enhancing the credibility of the research.

Trusting the children's accounts

Furthermore, the research took the stance that the children's accounts of their drawings were valid and trustworthy, even though, as children they may have provided interpretations that could have been different to those provided by the researcher, an adult (Dockett & Perry, 2007). At times, some of the children drew additional elaborations to their drawing, which seemed to simply to be done for their own sake.

For example, Calvin, in the seventh session, drew two figures, one lying down and another with a gun and wrote the word "peace". The more obvious interpretation was that the figures were related, however, according to Calvin, he drew himself lying down and wrote "peace" to describe how he had been feeling. Then, as there as additional time, he added the drawing of the man with a gun. Without his explanation of this extraneous drawing this second

figure could have been easily interpreted as being related to his experiences of mindfulness, however this would have invalidated his account.

Other doodles included Dudley's drawing in the ninth session of a "*tornado*". He explained this saying "*I just felt like drawing it.*" (D2:312). Fiona, in the second session, said "*I just made a pattern*" (F2:124). These explanations were useful to understand these additional drawings. It seems that the participants simply enjoyed drawing, felt bored or were not sure what to do and consequently, they drew some additional pictures that they explained were not related to their experiences of mindfulness and consequently were not included in the analysis.

Time to develop relationships

Another strategy to assure credibility was to gather the views of the participants over a sustained period of time. There was a five week period between initially meeting the participants and conducting their final interviews. During the implementation of the MBAT intervention, it was possible for rapport to develop between the participants and researcher. Eventually, by the final interviews, the researcher was more familiar with the participants' attentional styles and the participants felt relaxed and open in expressing their views, thereby increasing the credibility of their accounts.

A safe space in which to be open

During the interviews, the participants were supported in being honest about their experiences. They were encouraged to interpret their own drawings, so that any further analysis by the researcher would be based on their views. Furthermore, they were invited to critique the course. It was explained that their views were valued to further develop the intervention for other children. This counteracted the possibility of the participants saying only what they thought might please the researcher.

In summary, credibility included giving the participants an opportunity to explain their drawings or writing and encouraging them to be open and honest around the researcher whom they had come to know over a period of time.

Reflexive note: Background experience in doing IPA

In IPA, there are additional challenges as the researcher is a key influence on the interpretation of the findings (Pringle, Hendry, & McLafferty, 2011) and needs adequate skills for interviewing the participants, interpreting the interviews and analysing the findings, empathetically and critically (Brocki & Wearden, 2006). I was familiar with using IPA in a previous research project (when doing a degree at Masters level). Furthermore, I had experience in interviewing in an open-ended way as a result of working with children as an educational psychologist. In addition, I attended an IPA support group to help develop these skills further. Consequently, this may have contributed to credibility.

6.6.2. Transferability

Transferability is the extent to which the findings and their interpretation may be generalised to other contexts (Mertens, 2005). The reader needs to make links, between their situation and that of the research, before judgements about transferability can be made (Smith et al., 2009). In this research, transferability was enhanced by providing detailed information about the community and educational setting in which the research was conducted. In addition, details were also provided about the kinds of attentional difficulties that the participants had and their experiences of the practices themselves.

It is useful for the group of participants to be fairly homogenous to thereby enable judgements to be made about the theoretical transferability of their experiences (Smith et al., 2009). While there was a degree of homogeneity in that the participants were all 9 year olds who had experienced the same mindfulness-based intervention, there were significant differences in their attentional difficulties. The level of homogeneity could have been improved if perhaps the participants had been matched in regards to their attentional difficulties or if they had been assessed to be at similar stages of cognitive reasoning and language development. However, there was a limited pool from which to select the participants in this context.

To enhance transferability, a detailed description of attentional difficulties was provided, including how the mindfulness practices appeared to address these. With knowledge of the attentional difficulties of distractibility, rumination and automaticity, an educational psychologist may be able to compare other children to the participants. Therefore, there was reasonable transferability.

The role of the researcher was central to designing and implementing the mindfulness based intervention. To do this task to a high standard, guidance on teaching mindfulness was closely followed and further training in this area was undertaken (See Appendix A). This resulted in confidence in the effectiveness with which the mindfulness practices were taught to the participants. However, due to it being the first time that the course had been run, one concern was that the teaching approaches and resources were being developed and fine-tuned during the research itself. Nevertheless, the pilot sessions had been pivotal in addressing initial difficulties, such as needing to establish ground rules. Further research would be useful in evaluating the effectiveness of the MBAT intervention and this is discussed further.

Reflexive note: The multiple role of the researcher

In this research, the researcher needed have a broad range of skills, including to be able understand children's attentional difficulties and how to work in educational settings and teach mindfulness practices. These skills enabled me to design a mindfulness-based intervention and implement it in the complex context of a primary school.

However, as I had been the interviewer and the one who lead the intervention, it could be argued that there was significant potential for bias. For example, during the interviews, the participants had expressed views to please rather than challenge me. To counteract this tendency, they were asked open ended questions and encouraged to give them honest opinions. On balance, it was advantageous that the children were familiar to me in that this may have helped them to express their views more fully, knowing that I was familiar with the intervention and thus knew about what they spoke.

6.6.3. Dependability

Dependability is about ensuring that the outcomes of the research are trustworthy. This can be facilitated by keeping detailed records of all the processes involved and any issues that arose during the implementation phase of the research. In qualitative research the researcher is an important influence on the research, both as a person and a theorist (Willig, 2008). As a result, the researcher needs to be reflexive, including to make her influence transparent for evaluating the research process (Hiles & Cermák, 2008).

The reflexive diary was the main place where the stages of the research process were recorded in detail (See Appendix I for sample notes from the Reflective Diary). Time was taken to maintain this audit trail accurately and when it came to recalling details of the methodology, these records proved invaluable. Records were also made during the interviews themselves and included details on any issues that arose. There were also findings on the children's experiences of the interview process. This all contributed to the transparency required for dependability.

Reflexive note: Recording details about the interview rooms

Details of the environment in which the interviews were held were kept in order to provide evidence for the dependability of the research.

For example, the initial interview had been in a busy room with other activities going on, such as individual literacy sessions. This could be why the participants spoke less in the initial interview as compared to the final one, though it is also possible that this was because at this stage, the interviewer was a stranger.

There were also constraints related to working in the school context, including having the interview interrupted by a member of staff looking for something and the background noise of the whistling wind that disturbed one of the participants, Eric.

6.6.4. Confirmability

Confirmability requires that the logic used to interpret the data is made explicit (Mertens, 2005). Records of events that had been attended, such as supervision meetings, mindfulness events and IPA study group meetings, were kept. This enabled tracking of a range of processes, such as how the analysis phase was conducted or the data interpreted. By knowing how, when and why relevant decisions were made, confirmability was ensured.

While transcribing the interviews, the researcher needed to keep the content of the interviews authentic, by being aware of and mentally putting aside personal preconceptions (Smith et al., 2009). Interpretations that arose during transcription need to be recorded separately for reference during subsequent analysis (Finlay, 2008). In the research, any ideas that came to mind were recorded as comments on the transcripts, thereby putting them aside for use at a later stage. The commentary column of the transcriptions was used to record these interpretations of the content of the interviews as they emerged.

In interviewing, there is a delicate balance between the interviewer being passive, leaving any interpretation for the analysis phase, and being more active, prompting and facilitating further disclosure (Brocki & Wearden, 2006). Due to the participants' tendency to speak little, prompts were regularly used to encourage further elaboration. Care was taken to ask open-ended questions to maintain reliability while eliciting the detail that was required.

Reflexive note: The analysis phase

During the analysis phase, the researcher is required to interpret the findings by empathising with them and then critiquing them using the relevant theory (Brocki & Wearden, 2006). To understand and empathise with the experiences of participants and thereby support my role in the analysis phase, I participated in two mindfulness courses and joined the team on three more.

In summary, the research had included the actions to ensure quality in respect to the credibility, transferability, dependability and confirmability.

6.7. Implications for educational psychologists and schools

Educational psychologists potentially have a key role in the introduction of mindfulness in schools and currently there appears to be sufficient evidence for them to do so (Davis, 2012). Educational psychologists could be involved in implementing mindfulness-based interventions, training school staff and working with parents and children. However, few educational psychologists have the training to take up these opportunities. Consequently, further training in these approaches is required if expertise in this area is to develop.

This section focuses on implications related to the benefits for educational psychologists in developing a personal practice, particularly in regards to being in a position to train to teach mindfulness. Following this, it considers the potential use of the MBAT intervention to support those with attentional difficulties and mindfulness as a whole school approach.

6.7.1. The value of a personal practice in mindfulness

The initial stage in developing an understanding of mindfulness is to develop a personal practice. This in itself has potential benefits, including to enhance one's effectiveness during consultation. Mindfulness can enable more harmonious social interactions through being more present and approaching others in an accepting and non-judgemental way (McFadden, 2008). Thus mindfulness may contribute to skills in consultation.

In addition, increased levels of mindfulness have been shown to correlate with reduced levels of stress (Shapiro, Oman, Thoresen, Plante, & Flinders, 2008). As a result, educational psychologists may find these practices supportive in managing stresses, for example those induced by heavy workloads with limited administration time or time for reflection (Gersch & Teuma, 2005). Furthermore, having an established personal practice is established is required to be able to teach mindfulness as authentically as possible.

6.7.2. Using the MBAT intervention for attentional difficulties

Recent research has provided some support for the use of mindfulness for addressing attentional difficulties (Singh et al., 2010; van der Oord et al., 2012). The MBAT intervention was specifically designed for use as a small-group intervention in school settings to support children in learning attentional skills. Following the research, the MBAT intervention would need to be further developed, particularly in the light of the participant's views and the speculation on how mindfulness practices need to be adapted for different types of attentional difficulties.

Overall, the children found the MBAT intervention both useful and enjoyable. They also expressed a preference for the body scan, a more concrete practice, the use of metaphors and need to accommodate the needs of those with significant attentional difficulties, such as by changing or shortening some of the practices. Consequently, in the future development of the intervention these views would need to take into consideration. For example, participants could be encouraged to develop metaphors to symbolise their metacognitive processes. Also, peers with better attentional skills could be encouraged to mentor others. In addition, additional activities could be used for those with greater attentional difficulties. In regards to supporting the participants in their conceptualisation of mindfulness, other dimensions, such as intention, attitude and ethical discernment could be more clearly emphasised.

Since the research, the MBAT intervention has been implemented twice in a special school and there are plans to do so a third time. As a result, the resources for this programme have been further developed and there are plans to evaluate its efficacy as an intervention for developing attentional skills. For this, the use of the Attention Network Test (ANT), a tool to measure attention skills (Fan et al., 2002) may be advantageous. This test has been adapted for use with children (Rueda et al., 2004) and there is emerging evidence of its potential to identify attentional difficulties (Adolfsson, Sorensen, & Lundervold, 2008; Johnson et al., 2008). Furthermore, it has been used to measure changes in attentional skills following mindfulness

training (Jha et al., 2007; Tang et al., 2007; Zylowska et al., 2008) and thus be helpful in evaluating the MBAT intervention.

Furthermore, care would be taken to obtain informed consent from the children or adolescent participants and their parents or carers, including about gathering information from school staff. The research would be explained to school staff and the boundaries between the roles of researcher and educational psychologist would be made explicit. Furthermore, permission would be sought in preparation for future publication.

6.7.3. Mindfulness-based interventions in school settings

As explained in the literature review, the potential of mindfulness is not only for developing attentional skills (Burke, 2009). There is increasing evidence that mindfulness can also support other aspects of child development, including self-regulation of emotions (Hill & Updegraff, 2012; Semple & Lee, 2008) and behaviour (Singh et al., 2007). Consequently, another implication resulting from this research is to consider how mindfulness-based interventions may be implemented in school settings.

To implement mindfulness-based interventions in schools requires obtaining the consent of the head teacher, developing relationships with key members of staff and taking school systems into consideration. For instance, before the research could take place, the school's head teacher had agreed to it. Furthermore, the school's SENCo was invaluable in liaising with staff to select the participants, obtaining parental consent to involve the children as participants and negotiating a space for the intervention in the school.

Another aspect to consider is that in school settings, interventions need to accommodate additional school activities. In the research, there were times when the participants had to attend other activities. For example, Eric missed the second and ninth sessions to do bicycle training. During the third session, three participants were delayed due to a school trip, and the final group session was postponed for an hour due to a visiting theatre group. Research

that explored pupils views on learning mindfulness in more depth suggested further ways in mindfulness practices may be adapted (Kempson, 2012).

Mindfulness can also be adopted as a whole school approach and teaching it within the school curriculum was promoted at a conference (Carelse et al., 2010; MISP, 2011). Research on a standardised mindfulness course for pupils in mainstream education showed that students enjoyed and experienced improved well-being through this training (Huppert & Johnson, 2010). For those wishing to learn to teach the standardised programme used in the research, specialist training has become available (MISP, 2011).

6.7.4. Training staff in mindfulness-based approaches

School staff are essential resources in implementing interventions. The intention was to present the research to the whole staff at an SEN training session. However, the sessions had already been allocated earlier in the school year, consequently the intervention is yet to be presented and there are plans to do so.

Since the research, training workshops to introduce mindfulness-based approaches to school staff have been developed and implemented in four schools in the borough in which the research was conducted. Staff training, which is recognised as a major challenge in the implementation of mindfulness-based approaches in schools (Davis, 2012; Jones, 2011).

6.7.5. Mindfulness to promote staff-well being

Another possibility is to provide training in schools to support staff well-being. A small study investigated the experiences of learning mindfulness of 9 members of staff from a primary school. The 8-session Mindfulness-Based Stress Reduction course was provided to staff and it was found that this helped them to manage levels of anxiety, depression and stress (Gold et al., 2010). As part of my role as an educational psychologist, I have taught mindfulness practices to staff at a training day as part of supporting them to address work-related stress and to help them develop strategies to help pupils

needing support for attention and self-regulation. In 2013, I will be training to teach the MBSR course and intend to deliver it to support staff well-being.

6.7.6. Mindful parenting

The inclusion of parents has been incorporated in other mindfulness interventions particularly in one involving using mindfulness approaches to support children with ADHD (van der Oord et al., 2012). There was an increasing interest in research to explore how mindfulness may help parent-child interactions and thereby promote the development of a child's social skills (Cohen & Semple, 2010).

Particularly relevant for educational psychologists is recent research that focused on mindfulness training for parents and staff working with children with special educational needs. This study indicated that the participants experienced an overall reduction in levels of stress and anxiety and increased mindfulness and self-compassion (Benn, Akiva, Arel, & Roeser, 2012). This and other studies (Singh et al., 2009) have indicated that care competence was also positively affected.

In summary, the implications for educational psychology include the value of developing a personal practice in mindfulness, the potential use of the MBAT intervention in schools and the need for further training, for educational psychologists, school staff and parents. How these implications may be addressed in the future is discussed in the following and final chapter.

Summary of the chapter

This chapter discussed the findings of the research questions. It also described three types of attentional difficulties and proposed how mindfulness may support the development of attentional skills. It critiqued the methodology and outlined implications of using mindfulness-based interventions in educational psychology. The final chapter concludes the research, reflecting on its original and distinct contribution and future plans.

Chapter 7: Conclusions

Overview of the chapter

Overall this chapter presents the research conclusions, by considering the original aims of the research and how the research questions have been addressed. It also reflects upon the rationale for the research and the original and distinctive contribution that the research has made. Finally, it draws conclusions about the future of the research and the role of mindfulness based interventions in educational psychology.

The research originated in a professional interest in the needs of children and young people with attentional difficulties. It intended to contribute to an understanding of and the evidence for using mindfulness-based interventions in school settings to help children develop their attentional skills.

7.1. The aims of the research

The aims of the research were introduced in the first chapter and are now reviewed. They provided an overall focus to the research and how they were met is examined here:

Aim 1: Create and interpret new knowledge through original research at the forefront of the discipline

The research aimed to contribute to extending the forefront of knowledge, through original and quality research in areas where the literature was sparse as identified in the Literature Review chapter. This included researching children's experiences of mindfulness, conducting the research in an educational setting and focusing on the potential use of mindfulness practices to support for those with attentional difficulties. This aim was met by adopting a phenomenological approach, basing the research in a primary school and recruiting children with attentional difficulties as participants.

Aim 2: Acquire an understanding of a substantial body of knowledge at the forefront of educational psychology practice

A further aim had been to acquire an in-depth and significant body of knowledge at the forefront of professional practice, namely that of supporting children with attentional difficulties, in particular through the use of mindfulness-based interventions. In achieving this aim, the literature on mindfulness was thoroughly reviewed and an in-depth understanding of attentional control was developed, using models of the mechanisms of mindfulness. Consequently, expertise was gained in the use of mindfulness practices to help children develop their attentional skills, particularly for those children who had difficulties in concentrating.

Aim 3: Conceptualise, design and implement the research and adapt it in the light of unforeseen problems

This research focussed on exploring children's experiences of mindfulness and consequently needed to provide them with an opportunity to learn about mindfulness and how to practice it. As part of the research, the MBAT intervention was conceptualised, designed and implemented. Furthermore, using feedback from the pilot intervention and the process of implementation, this intervention was further adapted and developed.

Aim 4: Implement applicable techniques for research at doctoral level

A further aim of the research was to acquire a detailed understanding of the specific methodological techniques that were relevant to this research. To explore the participants' experiences of mindfulness, the research involved developing an in-depth understanding of using IPA. Furthermore, the research implemented these techniques with a high level of quality assurance as critiqued in the discussion chapter.

Aim 5: Develop new techniques, ideas or approaches

This aim regarded undertaking research at an advanced level and to include the development of new techniques. In the process of meeting this aim, the research explored the use of children's drawings as an additional medium of self-expression to thereby enrich the participants' accounts. This approach, and the participant's experiences of it, has been discussed. Overall, the use of drawings appeared to have been successful in enhancing the richness of

the children's accounts, thereby enabling the analysis of their experiences and how these changed through the course of the intervention.

The research also included designing the MBAT intervention as a new approach to supporting children with attentional difficulties in primary school. As a consequence of the research, introductory training in mindfulness-based approaches for school staff has been developed and implemented.

Aim 6: Develop research skills

In addition to the research aims, there were specific aims for the researcher in regards to meeting the criteria for doctoral level research. During the research, the researcher demonstrated a range of abilities, including those for making informed judgements on complex issues in the specific field of mindfulness and its implementation in the intervention. At times, complete information was not available, for example there was no mindfulness-based package already designed. Another example of making informed judgements without complete information includes the analysis of the findings, including developing an understanding of attentional difficulties.

The ability to communicate ideas and conclusions on the research effectively and clearly to a range of audiences had also been demonstrated. The findings were presented to an audience at a conference on mindfulness and to educational psychologists in the locality in which the research had been conducted. Further communication of the findings and implications of the research to the educational psychology service is planned.

Skills in exercising personal responsibility and autonomous initiative in complex and unpredictable contexts had also been demonstrated, particularly in implementing the MBAT intervention in the primary school.

Consequently, the research has successfully in meeting its aims, and has successfully explored the potential use of mindfulness practices in a primary school setting to help children develop attention skills.

7.2. Were the research questions addressed?

The research questions had been designed to address areas where the literature was sparse. There was a need for qualitative research on mindfulness with primary school age children and the feasibility of using this to help children to concentrate better in their learning. Following a review of the literature, the research questions were developed with an overall objective to explore participant's experiences of mindfulness.

The central research question, What are these children's experiences of mindfulness?, was addressed by the description of the children's attentional difficulties and in-depth analysis of their experiences of mindfulness. This interpretation explained the participants' experiences as they attempted to gain control of their attentional processes by repeatedly redirecting the attention to present moment events. Overall, the children experienced feelings of being calm, relaxed and happy feelings, details of body sensations, memories (often happy ones) and imaginary places and, later in the intervention, a detachment from the content of their attention and a personalisation of techniques to support them in sustaining their attention on their chosen focus.

The research also explored any possible changes in the children's levels of mindfulness change before and after the intervention. Any possible changes were not significant or measurable using the CAMM questionnaire. There were some qualitative differences in the kinds of pictures that the children drew, in that in the later stages of the intervention the children appeared more detached from the content of their thoughts and indicated ways in which they were using the mindfulness practices.

The research also considered how the children might apply the mindfulness practices that they learnt. Overall, they described being better able to concentrate in class and feel calmer and improve relationships with friends and family.

In terms of the participant's views on how to teach mindfulness, they expressed a preference for the bodyscan practice, the use of metaphors and appreciation of the value of developing a personal practice.

Overall, the research was successful in addressing the research questions.

7.3. Was the research justified?

This research was justified in its contribution to the evidence base for using mindfulness-based approaches to help children to develop their attention. Furthermore, it usefully added to the literature on mindfulness approaches with children in school settings by designing and implementing the MBAT intervention in a mainstream primary school.

The research also provided qualitative evidence that the participants could experience changes through mindfulness practices to support them in how they managed their attention. Consequently, it could be argued that the research empowered the individuals in developing independence in regulating their attention, reducing their reliance on school staff to do this for them.

In addition, the research made a positive contribution to methods to facilitate children in expressing their experiences, though the use of drawings.

7.4. Was an original and distinctive contribution made?

The research made a distinctive contribution to the profession of educational psychology by exploring the potential use of mindfulness to support children with attentional difficulties. It focused on their direct experiences of learning mindfulness and considered their views on applying these skills at home and in the classroom setting. Furthermore, the research demonstrated innovation and originality in developing the MBAT course, specifically for use in schools, as part of SEN provision for children with attentional difficulties. As a result,

the research generated resources for the MBAT intervention, thereby enabling the intervention to be implemented again in the future.

The research also developed the methodological approach of using drawings to facilitate the expression of children's experiences. The participants were invited to draw, write and talk about their experiences of mindfulness. This range of mediums for self-expression was provided due to anticipation of potential challenges in verbally expressing the abstract and intangible experiences of mindfulness. Furthermore, by using drawings as prompts, the children had a record of their learning process.

The research also developed theories on attentional difficulties, by analysing the participants' accounts in terms of theory on attentional networks, Buddhism and cognitive psychology. Consequently a rich understanding of potential underlying causes of the participant's attentional difficulties was developed. In these ways, the research made an original and distinctive contribution to educational psychology in developing the evidence base for using mindfulness to help children develop attentional skills.

7.5. The future for the research

The future of the research includes further development and implementation of the MBAT intervention and staff training. The plan has been emerging over the last few months, following additional training to teach an 8-session mindfulness course, called ".b" (dot-be), designed for adolescents in secondary schools (MISP, 2011). This course introduces mindfulness as a technique for developing attentional skills and managing challenging emotions. Completing this course has enabled additional options to be possible and these are outlined here.

The first step was to present the research to the educational psychology service, to share an understanding of attentional difficulties and the use of mindfulness in supporting the development of executive attention. The

presentation would include information about the research and the potential uses of the MBAT intervention and the “.b” course.

The plan also was to present the research to the school in which the intervention had been implemented. The views of the staff would be sought and if there was an interest in staff training in mindfulness, this could be offered to the school. Furthermore, the research could be presented to staff in other schools to further explore interest in the MBAT intervention.

Two small mindfulness-based interventions are to take place at a special secondary school where I work as an educational psychologist. The first group, based on the MBAT intervention, aimed to support a small number of adolescents in developing their attentional skills. The second group focused using mindfulness to address issues with anxiety. There are also proposals to work with school staff and parents of children with attentional difficulties.

Consequently, the research included further development of the MBAT intervention. The skills developed in the research process were used to design and implement further mindfulness-based interventions. Future research could include evaluating the MBAT intervention and participating in research on mindfulness in schools (Huppert & Johnson, 2010).

Summary of the chapter

The research has been successful in meeting its aims and making a unique and distinctive contribution to educational psychology. It has enriched the evidence-base for using mindfulness-based approaches in schools for developing children’s attentional skills and has created the MBAT intervention. It has also enriched the literature on exploring children’s experiences of mindfulness and developed the use of children’s drawings as a medium of self-expression. The future of the project includes further development of the MBAT intervention and dissemination of the research findings to parents, school staff and other professionals, including educational psychologists.

Appendices

Appendix A: Training to teach mindfulness to children

Good Practice Guidance for Teaching Mindfulness

This guidance, Good Practice for Teaching Mindfulness-based Courses, was developed by the UK Network of Mindfulness-Based Teacher Trainers in January 2010 (CMRP, 2010). An earlier version of this information was not available at the time of the research proposal submission.

Aspect of the guidance that is relevant to this research	How the researcher met the requirements
A Prior training or relevant background <ol style="list-style-type: none"> 1. Professional qualification in clinical practice, education or social context or equivalent life experience. 2. Knowledge of the populations that the mindfulness-based approach will be delivered to, including experience of teaching, therapeutic or other care provision with groups and individuals. 	<p>I have a professional qualification in educational and child psychology, including an in-depth knowledge of working with children, including primary school children to which the mindfulness-based approach will be delivered.</p>
B Foundational training <ol style="list-style-type: none"> 1. Familiarity through personal participation with the mindfulness-based course curriculum that you will be learning to teach. 2. In-depth personal experience with daily mindfulness meditation practice, which includes the three core practices of mindfulness-based programmes – body scan, sitting meditation and mindful movement. 	<p>As the mindfulness-based course that I developed was unique, I work shadowed another practitioner who was teaching mindfulness in schools.</p> <p>I have an in-depth and long-standing regular practice of the three core mindfulness practices that began prior to 1993.</p>
C Mindfulness-based teacher training <ol style="list-style-type: none"> 1. Completion of an in-depth, rigorous mindfulness-based teacher training programme or supervised pathway over a minimum duration of 12 months. 2. Development of awareness of the ethical framework within which you are working. 3. Development of awareness and recognition of the limitations and boundaries of your training and experience. 4. Engagement in a regular supervision 	<p>The researcher has undergone three years (1998 to 2001) of professional training in teaching yoga (mindful movement and meditation).</p> <p>I have an awareness of the ethical framework of educational psychology practice. I also underwent additional training to specialise in teaching yoga to children with special educational needs. I have regular</p>

Aspect of the guidance that is relevant to this research	How the researcher met the requirements
<p>process with an experienced mindfulness-based teacher(s) which includes:</p> <ol style="list-style-type: none"> Opportunity to reflect on/inquire into personal process in relation to personal mindfulness practice and mindfulness-based teaching practice; Receiving periodic feedback on teaching from an experienced mindfulness-based teacher through video recordings, supervisor sitting in on teaching sessions or co-teaching and building in feedback sessions. <p>5. Participation in a residential teacher-led mindfulness meditation retreat.</p>	<p>supervision as an educational psychologist and a doctoral student.</p> <p>I regularly meet with a mindfulness teacher for reflection on personal mindfulness practice.</p> <p>It would have been useful to have had specific supervision on teaching the mindfulness course to children at the time that the course was being implemented. I now have access to such feedback from experienced mindfulness-based teachers to teach mindfulness in schools.</p> <p>I have participated in teacher-led mindfulness-meditation retreats.</p>
<p>D. Ongoing good practice requirements</p> <ol style="list-style-type: none"> Ongoing commitment to a personal mindfulness practice through daily formal and informal practice and attendance on retreat. Ensuring that ongoing contacts with mindfulness-based colleagues are built and maintained as a means to share experiences and learn collaboratively. Ongoing and regular process of supervision by an experienced teacher(s) of mindfulness-based approaches which includes the areas cited in C4 above. Ongoing commitment to reflective practice supported by for example, viewing recordings of own teaching sessions, connections with mindfulness teacher(s) and regular reading of books from the field of mindfulness. Engaging in further training to develop skills and understanding in delivering mindfulness-based approaches. A commitment to keeping up to date with the current evidence base for mindfulness-based approaches. Ongoing adherence to the appropriate ethical framework of your background. 	<p>I have an ongoing commitment to practising mindfulness daily, including formal and informal practice and attending retreats. My networks with mindfulness-based colleagues are established and flourishing.</p> <p>I currently have access to ongoing and regular supervision by an experienced teacher of mindfulness-based approaches. I am committed to reflecting on my practice, including through relationships with mindfulness teachers. I have also completed further training in mindfulness-based approaches and will continue to do so. (See next section for a summary of mindfulness related training.</p> <p>I am committed to keeping up-to-date with current evidence for mindfulness-based approaches. I adhere to the ethical framework for educational psychologists and yoga teachers.</p>

Summary of mindfulness related training

Here is an extract from the reflection diary relating to professional development in regards to developing skills in either my personal mindfulness practice or in teaching mindfulness to children.

- January 1998 – Started training with British Wheel of Yoga in teaching yoga to adults.
- May 1998 – Taught first yoga class to children as an after-school club held at a local primary school
- January 2001 – Completed training in Yoga Teacher training with British Wheel of Yoga. Regularly taught yoga classes to adults and continue to do so to date.
- December 2008 – I submitted Theme 1A, making the decision to explore mindfulness-based approaches with children in school settings.
- February 2009 - I agree inspired my personal mindfulness practice, by regularly attending the weekly meditation classes at the London Buddhist Centre, run by ordained members of the Triratna Buddhist community.
- April 2009 – I completed a 5 day training programme to teach Yoga to children with Special Educational Needs at the Special Yoga Centre, London.
- June 2009 – I participated in a Mindfulness-Based Stress Reduction (MBSR) course. This course was run over two weekends.
- November 2009 – Attended a conference entitled “Mindfulness and Wellbeing: from Neuroscience to Spirituality” held at the University of East London, Stratford Campus.
- January 2010 – participated in an 8-week MBCT course at The Breathing Space, the secular space managed by the London Buddhist Centre.
- February 2010 – It has been a year of going regularly to the LBC for the Friday meditation and *puja* session. My personal mindfulness practices now much more regular, practising daily with sitting mindfulness and yoga.
- May 2010 – I became a *mitra* (friend) of the Triratna Buddhist Community.
- 11 March 2010 – Mindfulness in Schools Conference in Tonbridge, Kent.
- July 2010 – I submitted a journal article that was accepted for publication in DECP Debate – reviewing two conferences on mindfulness and considering implications for EP practice.
- 12 August 2010 – I began participating by being part of the support team for an MBCT course that was being run on just text her Thursdays from 12/8/10 to 9/9/10. It was held at The Breathing Space, which is affiliated with the London Buddhist Centre. It was interesting to see how the MBCT course was taught and how participants learnt from each other. The centeredness and calm of the leaders was also helpful in providing a sense of stillness and calm centeredness amongst the participants
- 31/8/10 – I joined the support team on the second eight-week MBCT course, being run on Tuesdays from 31/8/10 to 19/10/10.
- 13/09/10 – I joined the team on a third MBCT course, on Mondays from 13/9/10 to 1/11/10. This course was lead by the person who founded the MBCT courses at this centre and taught the other order members.

- 2/10/10 – Mindfulness in Schools Induction Training day for those working in schools and who also have an established mindfulness practice. It covered the 8 week “.b” course for adolescents.
- 8/11/10 – I joined the team to support a new course, “Kindness Behaviour Training”, based at the Breathing Space – 6 weeks on Mondays from 8/11/10 to 13/12/10 – this has been a powerful experience – understanding further the importance of the quality of attention and being aware of that, and using practises to enhance this and to reflect on our relationships with others. It was based the Buddhist practice called the Metta Bhavana, a practice for cultivating loving kindness and on the work by Paul Gilbert on Compassion focussed therapy (Gilbert, 2010a, 2010b).
- 11/11/10 and 12/11/10 – 2-day course of mindfulness with Jon Kabat-Zinn – this was an amazing experience in which JKZ lead 250 professionals through nearly continuous mindfulness practice. He wanted more to take this on as a life-style – not to see mindfulness as simply a treatment approach or another tool to use.
- 26/3/11 – I attended the first day of the Mindfulness in Schools Project (MISP) initial teacher training. This training continued on 18/4/11, 19/4/11 and 20/4/11.
- 2/4/11 – I began a six-month training course on “Teaching Yoga to Children” module accredited by the British Wheel of Yoga. It included aspects of teaching mindfulness to children and was run over seven Saturdays, namely 2/4/11, 7/5/11, 11/6/11, 23/7/11, 10/9/11, 1/10/11 and 29/10/11. It included homework and being observed and assessed while teaching a yoga class to children.
- 9/4/11, 10/4/11 and 11/4/11 – I attended the “Mindfulness Now” Conference at Bangor. On the 10/4/11, I presented my research findings.
- 18/4/11, 19/4/11 and 20/4/11 – I participated in a three day residential, focusing on training professionals to deliver the “.b” mindfulness-based course. This was part of the MISP initial teacher training programme.
- 16/9/11 – Presentation to EPS on mindfulness and executive function.
- 23/06/12 and 24/06/12 – Weekend workshops on creative engagement in meditation and teaching meditation by Vajradaka, with whom I began having monthly meditation reviews to support meditation practice.
- 10/10/11 – Presentation to small group of Trainee EPs at UEL on mindfulness in schools.
- 1/11/12 – Delivered twilight INSET for class teachers at a primary school.
- 2/2/12 – Presentation to a small group of trainee EPs on mindfulness.
- 27/2/12 – Day workshop on mindfulness for team of specialist teachers.
- 21/6/12 – Accepted on Teacher Training Level 1 course to train to teach the Mindfulness-Based Stress Reduction Course (starting on 15/01/13).
- 12/7/12 – Delivered two workshops on mindfulness at parent conference.
- 27/10/12 to 7/11/12 – Underwent an 11 day solitary retreat at Danaloka.
- 17/11/12 and 18/11/12 – Participated in first of two weekend workshops on Yoga and Mindfulness for Children and Adolescents with Mental Health Difficulties, facilitated by two clinical psychologists who are also yoga teachers. The second weekend will be on 19/01/13 and 20/01/13.
- 24/11/12 – Attended conference on empathy and compassion in society, where compassion and mindfulness-based approaches were promoted.

Appendix B: Ethics Application

Application for the approval of a research programme involving human participants

UNIVERSITY OF EAST LONDON

APPLICATION FOR THE APPROVAL OF A RESEARCH PROGRAMME INVOLVING HUMAN PARTICIPANTS

Please read the Notes for Guidance before completing this form. If necessary, please continue your answers on a separate sheet of paper: indicate clearly which question the continuation sheet relates to and ensure that it is securely fastened to the report form.

1.	Title of the programme: Applied Professional Doctorate in Educational and Child Psychology Title of research project : Children's experiences of learning mindfulness: a phenomenological study
2.	Name of person responsible for the programme (Principal Investigator): Professor Irvine Gersch Status: Doctoral Programme Leader Name of supervisor: Dr Martin Cook Status: Principal Educational Psychologist
3.	School: Department/Unit: psychology
4.	Level of the programme : Postgraduate (Professional Doctorate)
5.	Number of: (a) researcher : 1 (b) participants : 5 to 7
6.	Name of researcher : Ms Bernadette Rose Carelse Nature of researcher: Student
7.	Nature of participants: The participants will be selected in consultation with the school's Special Educational Needs Coordinator (SENCo), who is responsible for coordinating and managing the special educational provision in the school itself. These children may have some difficulties relating to attention or behaviour, although they will need sufficient skills to participate in a small group. There will be between 5 to 7 participants who will be as far as possible, an equal mix of boys and girls. Year five pupils, with sufficiently developed language skills will be selected, as this year group will not yet be preoccupied with exams. Furthermore, a small number of parents and teachers will be selected to elaborate on the research question on how children can use mindfulness to regulate their attention or behaviour.
8.	Probable duration of the research: from (starting date): October 2009 to (finishing date): May 2010

9. Aims of the research including any hypothesis to be tested:

The aim of the study is to explore how children, with some difficulties with attention or behaviour, experience mindfulness. There is some evidence that increased levels of mindfulness leads to a range of benefits including improved well-being and attention and decreased levels of anxiety and depression. The objective is to explore participant's experiences of any insights into their challenges that might occur, rather than to evaluate the efficacy of the intervention. Furthermore, implications for using mindfulness based practices in a school setting and in relation to those who support children with these difficulties will be explored. The central research question is: What are these children's experiences of mindfulness? Furthermore, additional research questions are

1. How do children's levels of mindfulness change as a result of their participation?
2. How can children use mindfulness to regulate their attention or behaviour?
3. What are children's views on how to teach mindfulness to children?

A qualitative methodology will be used to explore children's lived experiences. Also, to get a more complete picture of any changes in the participant's levels of mindfulness during the course, a quantitative measure of mindfulness will be used (See Appendix A). This qualitatively driven study will thus be enhanced by the quantitative component that will be nested within it.

10. Description of the procedures to be used (give sufficient detail for the Committee to be clear about what is involved in the research). Please append to the application form copies of any instructional leaflets, letters, questionnaires, forms or other documents which will be issued to the participants:

In the preparatory stage, a 10 week mindfulness course will be designed consisting of ten 60-minute sessions (See Appendix B). Each session includes a review of homework, practices of mindfulness, a discussion and setting targets for practising at home. Approval from the ethics committee will be sought and obtained. Also, participants will be identified. Their consent and that of their parents or carers will be sought (See Appendices C and D).

Next, introductory sessions for staff and parents will be held and data collection will start with by obtaining the views of staff and parents. Participants will be interviewed individually (See Appendix E) and initial levels of mindfulness assessed. The mindfulness program will then run for 10 weeks. Each session will be recorded.

Finally, the participants are interviewed individually (See Appendix E) and their levels of mindfulness reassessed. Once the data has been gathered, transcriptions from the sessions and individual interviews are created. These are then analysed using Interpretive Phenomenological Analysis (IPA). The results are then discussed with the participants, to check that their accuracy. Following updating the results, recommendations for teaching mindfulness to children with attention and behaviour difficulties will be outlined.

11.	Are there potential hazards to the participant(s) in these procedures? If yes: (a) what is the nature of the hazard(s)? (b) what precautions will be taken?	NO
12.	Is medical care or after care necessary?	NO
13.	May these procedures cause discomfort or distress? It is unlikely that these procedures may cause discomfort or distress. According to the research it is more likely that participating in a mindfulness-based program is likely to lead to increased well-being and decreased anxiety and reduced stress. Children will be asked to write about or describe their experiences of mindfulness. While it is unlikely, it may be that difficult emotions are part of these experiences and children may find it challenging to express this. In order to support children through this, the researcher aims to be sensitive to this possibility. If there are any perceived difficulties, children will be debriefed and referred to a member of staff for immediate support, and parents will be informed.	NO
14.	(a) Will there be administration of drugs (including alcohol)?	NO
15.	(a) How will the participants' consent be obtained? The consent of participants will be obtained in writing, from the children themselves and their parents. It will also be communicated that, even if they give consent, they can opt not to participate in sections of the course and choose to withdraw their consent at any stage. (b) What will the participants be told as to the nature of the research? Participants will be told the following information about the research: <ul style="list-style-type: none"> • The research project is related to completing a course. • The research is about children's experiences of participating in a mindfulness course. • Mindfulness is as a way of paying attention to events in the present moment nonjudgementally. • The benefits of mindfulness will be summarised. • A 10 week mindfulness course will be run at the participants' school. Each session will be an hour-long, during which time practices to help with concentration and developing self acceptance will be taught. • This course is will be attended by a group of children who are identified as having difficulties with attention or behaviour. • All the children who will be in this group will be interviewed beforehand and will need to complete a questionnaire. They will also be expected to write about and discuss their experiences. • Each session be recorded and notes will be made about children's behaviour and the participation in the course. All the recordings and notes will be kept in a safe lockable place and when the research is reported, all details will be made anonymous. • The content of the sessions will be kept confidential, unless there is a risk of someone being hurt or harmed. 	

16.	<p>(a) Will the participants be paid?</p> <p>(b) If yes, please give the amount:</p> <p>(c) If yes, please give full details of the reason for the payment and how the amount given in 16 (b) above has been calculated (i.e. what expenses and time lost is it intended to cover):</p>	<p>NO</p> <p>£</p>
17.	<p>Are the services of the University Health Service likely to be required during or after the research?</p>	
18.	<p>(a) Where will the research take place?</p> <p>The research will take place in a primary school in Hackney, London.</p> <p>(b) What equipment (if any) will be used?</p> <p>The materials for this study include:</p> <ul style="list-style-type: none"> • A 10-week mindfulness-based course (See Appendix) • The Acceptance and Mindfulness Measure (See Appendix) • Access to a quiet space in the school setting for an hour on a weekly basis for 10 weeks • Accessories including flipchart, markers, stickers, handouts, colouring pencils and floor mats. <p>(c) If equipment is being used is there any risk of accident or injury?</p>	
19.	<p>Are personal data to be obtained from any of the participants?</p> <p>If yes, (a) give details:</p> <p>Personal data from the participants will include their names, dates of birth and levels of reading and writing.</p> <p>(b) state what steps will be taken to protect the confidentiality of the data?</p> <p>Any information given by participants will be made anonymous. The confidentiality of the data will be protected by keeping any paper-based information in a safe lockable place. Electronic information will be kept either on the home computer of the research, or on the work computer.</p> <p>(c) state what will happen to the data once the research has been completed and the results written-up. If the data is to be destroyed how will this be done? How will you ensure that the data will be disposed of in such a way that there is no risk of its confidentiality being compromised?</p> <p>Once the research has been completed and the results are written up, any paperwork with confidential information will be shredded and computer files deleted. Only the anonymous data will be kept.</p>	
20.	<p>Will any part of the research take place in premises outside the University?</p> <p>Will any members of the research team be external to the University?</p> <p>If yes, to either of the questions above please give full details of the extent to which the participating institution will indemnify the researchers against the consequences of any untoward event:</p>	

The research is being undertaken on behalf of the Educational Psychology Services in [REDACTED] with agreement of the [REDACTED] Principle Educational Psychologist and [REDACTED] Assistant Director, Support for Children and Young People.

The research will take place in a primary school environment, with the authorisation of the Head Teacher. The activities will be of a similar nature to the everyday activities as part of the school routine. This includes children participating in small group work away from the rest of their class, for short periods of time. As part of their work, educational psychologists may facilitate such group work.

21. Are there any other matters or details which you consider relevant to the consideration of this proposal? If so, please elaborate below: N/A

22. If your programme involves contact with children or vulnerable adults, either direct or indirect (including observational), please confirm that you have the relevant clearance from the Criminal Records Bureau prior to the commencement of the study. YES

23. **DECLARATION**

I undertake to abide by accepted ethical principles and appropriate code(s) of practice in carrying out this programme.

Personal data will be treated in the strictest confidence and not passed on to others without the written consent of the subject.

The nature of the investigation and any possible risks will be fully explained to intending participants, and they will be informed that:

- (a) they are in no way obliged to volunteer if there is any personal reason (which they are under no obligation to divulge) why they should not participate in the programme; and
- (b) they may withdraw from the programme at any time, without disadvantage to themselves and without being obliged to give any reason.

NAME OF APPLICANT:
(Person responsible)

Signed: _____

_____ Bernadette Rose Carelse _____ Date: _____

NAME OF DEAN OF SCHOOL:

Signed: _____

_____ Date: _____

Application for amendments to methodology

Simiso Jumane
Admission and Ethics Officer
University of East London
Stratford Campus
London E15 4LZ

7 February 2010

Re: Amendments to methodology - Student 0510853 - Ethics Application ETH/11/39

I am a student on the Applied Doctorate in Educational and Child Psychology Course (Student number: 0518053). Last year, my research proposal (submitted May 2009) and my ethics application (July 2009) were approved. My Ethics Committee reference is ETH/11/39. I understand that the Ethics Committee needs to know about any significant changes taking place after approval is given. I have decided to make some alterations to the methodology and under the guidance of my current supervisor, Professor Irvine Gersch, I am informing the Ethics Committee of this.

Approval has been granted for me to run a 10-session mindfulness course for children in a mainstream primary school, including inviting the participants to complete a questionnaire before and after participation and to be interviewed about their experiences.

The proposed changes regard these aspects of the data collection:

1. Frequency of the sessions - The initial design had weekly sessions, over ten weeks. The new design proposed having the same sessions twice weekly, over five weeks. The rationale for this is to increase the children's weekly practice of mindfulness.
2. Inviting children to draw - Initially, the proposal was to get children to write and talk about their experiences. The revised plan is to invite children to draw. The children will remain the owners of their drawings and permission will be sought to take photos of the drawings.
3. Reducing length of interview schedule - the proposal is to reduce the number of questions so that the interview is simplified.
4. A pilot – One addition to the plan is to run a pilot with three additional participants. The plan is to use the first two sessions of the ten-session mindfulness course and the same interview and questionnaire materials. This will enable materials to be tested out.

I hope that these changes will be accepted. The safety of the participants and ethical principles of the project as a whole are upheld.

Yours sincerely,
Bernadette Carelse

Appendix C: Designing the Mindfulness-Based Attention Training (MBAT) intervention

The Mindfulness-based Attention Training intervention was designed specifically for the research, based on three mindfulness courses. Information about these courses was available in the public domain.

1. The **Mindfulness-based Cognitive Therapy for children (MBCT-C)** programme (Baer, 2006; Greco & Hayes, 2008; Lee et al., 2008; Semple & Lee, 2008), a 12 session course, run weekly for children.
2. The **Mindfulness-based Stress Reduction course for children MBCSR-C** (Saltzman & Goldin, 2008).
3. The **Mindful Awareness Practices for Attention Deficit Hyperactivity Disorder (MAPs for ADHD)** is an 8 week course in mindful awareness for adults and adolescents with ADHD. It highlights the possibility of using mental training to alter brain function and structure through long-term practice of mindfulness (Zylowska et al., 2009).

Comparison of key features of MBCT-C, MBSR-C, MAPs for ADHD and MBAT

This table compares some of the main features of MBCT-C, MBSR-C, MAPs for ADHD and MBAT

Feature	MBCT-C (Semple & Lee, 2008)	MBSR-C (Saltzman & Goldin, 2008)	MAPs for ADHD (Zylowska et al., 2009)	MBAT intervention
Frequency	Weekly	Weekly	Weekly	Twice weekly
Parent-school	Parents are invited to attend an orientation session that includes some mindfulness practices.	Introductory session (parents): background to mindfulness, benefits, rationale for offering course to children, course structure and commitment.	None	A session with staff and parents was offered, but school had no time. Parents were invited to contact the researcher about any questions
Length of sessions	90 minutes	40 to 90 minutes, depending on child	2 ½ hours	60 minutes
Setting	Clinical	Various	Clinical	Mainstream primary school
Participants	children with anxiety and depression	General ages and abilities	Adults with attentional difficulties, including ADHD	Primary school aged children with mild attentional difficulties
Adult: child	1 adult to 7 or 8 children			1 adult to 5 to 7 children

Comparison of content from MBCT-C, MBSR-C, MAPs for ADHD and MBAT

Here is a comparison of the content of the mindfulness interventions, MBCT-C, MBSR-C, MAPs for ADHD and MBAT showing what was incorporated into the MBAT, the mindfulness intervention for the research. The shared content is in bold.

Ses sion	MBCT-C (Semple & Lee, 2008)	MBSR-C (Saltzman & Goldin, 2008)	MAPs for ADHD (Zylowska et al., 2009)	MBAT intervention – Key Aims developed using ideas from other courses
1	<ul style="list-style-type: none"> Developing community; Defining expectations; Emphasizing the importance of homework; Orientation to mindfulness; Mindful smiling while waking up exercise. <p><i>Homework: 2 to 4 short experiential home practice exercises were assigned after each session</i></p>	<ul style="list-style-type: none"> Mindful Eating Practices; Intro: Still Quiet Place; Mindfulness as "paying attention to here and now"; Begin breath-based practices such as jewel/ treasure <i>Homework: jewel/ treasure exercise; monitor pleasant experiences, engage in one mindful activity</i> 	<ul style="list-style-type: none"> Introduction and Overview of ADHD and mindfulness, instructions for sitting meditation Intention for being there Raisin exercise and 5mins sitting practice on the breath. <i>H/W: 5 minutes sitting meditation (with CD) and "Telephone Breath – focus on breathing if phone rings.</i> 	<ul style="list-style-type: none"> Introducing mindfulness– meaning of mindfulness, awareness and acceptance. Mindfulness Acceptance and Awareness Questionnaire Practice – Still Quiet Place – 5 mins sitting meditation Draw/ write exercise Importance of homework - stickers on Still Quiet Place.
2	<ul style="list-style-type: none"> Dealing with barriers to practice; Introduction to mindfulness of the breath; Eating a raisin exercise. <i>Homework (as Session 1)</i> 	<ul style="list-style-type: none"> Mindful eating practices; Review home practice; Jewel/ treasure exercise; Answer questions <i>Homework: eat a snack or meal mindfully</i> 	<ul style="list-style-type: none"> Difficulties in practising meditation - distractibility, restlessness, boredom are common for everyone and especially challenging for those with ADHD. The participants are encouraged to work with their difficulties responsibility - "It's not about staying with your breath, but returning there". 	<ul style="list-style-type: none"> Dealing with barriers to practice – what would it be like to be mindful Mindful Eating – Raisin Exercise Mindful Sitting – mindfulness of the breath Draw/ write exercise Homework: Eat a snack mindfully

Ses sion	MBCT-C (Semple & Lee, 2008)	MBSR-C (Saltzman & Goldin, 2008)	MAPs for ADHD (Zylowska et al., 2009)	MBAT intervention – Key Aims developed using ideas from other courses
3	<ul style="list-style-type: none"> • Practice differentiating thoughts, feelings, and body sensations; • Introduction to mindful body movements (yoga postures). <p><i>Homework (as Session 1)</i></p>	<ul style="list-style-type: none"> • Mindful eating practice; review class 2 and homework; • Introduce concept of "funny mind" (internal dialogue); • Body scan exercise (mindfulness of body experiences) • <i>Homework: body scan exercise; monitor and pleasant experiences using the Unpleasant Experiences Calendar</i> 	<ul style="list-style-type: none"> • Mindful awareness of sound - observe experience of listening to piece of music • Meditation on body sensations, breathe and sounds. • Homework: practice mindful awareness using questions as cues - "where is my attention right now?" Or "what am I doing right now?" Visual reminders (e.g. sticker dots or frame with word "breath") 	<ul style="list-style-type: none"> • Concept of "Funny Mind" - differentiating thoughts, feelings and body sensations • Mindful movement – yoga and body scan • Mindful sitting – mindfulness of the breath • Draw and Write about the experience - new stickers for home • Homework: more stickers – with questions - for reminders to practice breathing
4	<ul style="list-style-type: none"> • Mindful hearing; • Receptive listening exercise to identify thoughts, feelings, and body sensations; • Introduction to body scan exercise. <p><i>Homework (as Session 1)</i></p>	<ul style="list-style-type: none"> • Mindful Eating Exercise • Exercises to explore how we view ourselves and each other? • Exercise - investigating thoughts when doing difficult tasks • Mindful movement - yoga • <i>Homework: body scan exercise/ yoga; monitor pleasant experiences; awareness of breath; engage in mindful activity</i> 	<ul style="list-style-type: none"> • Counting the breath meditation. • Gentle mindful movement, with awareness of pleasant, unpleasant and neutral sensations and ways to manage pain • Homework: daily mindfulness, for example when taking shoes on or off. 	<ul style="list-style-type: none"> • Feedback – Noticing "funny mind" internal dialogue • Mindfulness Practice – mindful movement (yoga) then body scan • Mindful sitting – Mindful hearing –listening to identify thoughts, feelings and body sensations – "funny mind" (internal dialogue) • Draw and write about experience • Homework: Body Scan - Breath

Ses sion	MBCT-C (Semple & Lee, 2008)	MBSR-C (Saltzman & Goldin, 2008)	MAPs for ADHD (Zylowska et al., 2009)	MBAT intervention – Key Aims developed using ideas from other courses
5	<ul style="list-style-type: none"> • Mindful hearing (continued); • Creating expressive sounds exercise; • <i>Homework (as Session 1)</i> 	<ul style="list-style-type: none"> • Mindful Eating Practice; review class 4 and homework; • explore thoughts and feelings associated with unpleasant experience; • Concept of "funny mind"; • Feelings Practice • <i>Homework: Continue Feelings Practice, using haiku, other poetry, or art to depict feelings; notice moments of reactivity and explore ways of responding; engage in new mindful activity</i> 	<ul style="list-style-type: none"> • Mindfulness of thoughts, using an image of a sky and clouds for the concept of meta-awareness (blue sky), and experiences in present (clouds as thoughts, feelings, mental images, noises/ sounds or physical sensations). • Homework count moments of being hypercritical or judgemental (to self or others) throughout one typical day 	<ul style="list-style-type: none"> • Feedback – Noticing “funny mind” • Mindful movement with body scan • Mindful sitting – awareness of thoughts – picture of sky and clouds • 3-minute breathing space focusing on feelings • Draw/ write about feelings • Homework: 3 m Breathing Space
6	<ul style="list-style-type: none"> • Mindful seeing; learning what we don’t see; • Practice differentiation of judging from describing; • Guided imagery exercise. <i>Homework (as Session 1)</i> 	<ul style="list-style-type: none"> • Mindful eating practice; • review previous topics and • <i>Homework; explore Feelings Practice through haiku, art, etc.; Thought Parade Exercise; Walking Practice; moving our practice into the world</i> 	<ul style="list-style-type: none"> • Mindfulness of emotions – function and acceptance of emotions,. • Sitting meditation – imagining recent emotional event and applying RAIN. RAIN - Recognize, Accept, Investigate and Non-identify – for mindfulness during emotional responses • Loving kindness meditation for a positive emotional state • Homework –attention to pos and negative emotional states 	<ul style="list-style-type: none"> • Feedback – Differentiating describing from judging • Mindfulness Practice – mindful movement (yoga) with body scan exercise. • Mindful sitting –Mindful seeing- developing a non-judgemental attitude • Writing about the experience, then group feedback • <i>Homework: Noticing reactions, mindful responding; End</i>

Ses sion	MBCT-C (Semple & Lee, 2008)	MBSR-C (Saltzman & Goldin, 2008)	MAPs for ADHD (Zylowska et al., 2009)	MBAT intervention – Key Aims developed using ideas from other courses
7	<ul style="list-style-type: none"> • Mindful seeing (cont); • Practice directing attention - seeing optical illusions exercise; • Mindful movement exercise: be a flower opening, a tall tree, and a butterfly. • <i>Homework (as Session 1)</i> 	<ul style="list-style-type: none"> • Mindful Eating Exercise; review class six and homework; paired listening (one describes a difficult communication; the other listens and reflects. Swap) • Share examples of responding, role-play; • Loving- Kindness Practice; • <i>Homework: Loving-Kindness Exercise; responding to stress, "funny mind"; mindful activity; imagine world from another's view; bring object about what class means to you</i> 	<ul style="list-style-type: none"> • Expanded awareness of all experiences in immediate present. • Reflection on various aspects of attention: alerting, orienting, executive attention • Discussion on social interactions and social awareness (listening, not interrupting or talking excessively or blurting out answers, being distracted in a conversation) • Homework: Listening mindfully to a friend or partner 	<ul style="list-style-type: none"> • Feedback – Differentiating describing from judging • Mindfulness Practice – Mindful movement, including mindful walking, then exploration with, for example, being a flower opening, a tall tree or a butterfly. • Mindful sitting –Mindful seeing- developing a non-judgemental attitude - stillness with eyes open. • Draw/ Write, feedback • <i>Homework: mindfulness in everyday practice; End</i>
8	<ul style="list-style-type: none"> • Mindful touch; • Learning how to “stay present” with what is here right now; • Body scan exercise. • <i>Homework (as Session 1)</i> 	<ul style="list-style-type: none"> • group a choice; review class seven and homework; • letter to a friend; • making the practice your own • <i>Homework: Flashlight Exercise; make a commitment as to how the practice will continue</i> 	<ul style="list-style-type: none"> • Review of mindfulness concepts and exercises • Resources for sustained mindfulness practice. • All participants share about their experiences of the course • Mindfulness as lifelong process: checking one’s attention, renewing intentions, returning to immediate present and applying the principle of acceptance and change. 	<ul style="list-style-type: none"> • Feedback – mindfulness in everyday practice • Mindfulness Practice – mindful touch, with eating-learning to stay present. • Mindful sitting –Loving-Kindness – being present, with acceptance and awareness. • Draw/ Writing, group f/b • <i>Homework: Loving-Kindness for stressful situ’s</i> • <i>Homework: bring object on what class means to you; End</i>

Ses sion	MBCT-C (Semple & Lee, 2008)	MBSR-C (Saltzman & Goldin, 2008)	MAPs for ADHD (Zylowska et al., 2009)	MBAT intervention – Key Aims developed using ideas from other courses
9	<p><u>Session 9</u>: Mindful smell; Continue practice of differentiating between <u>judging</u> and describing; Mindful body movements.</p> <p><u>Session 10</u>: Mindful taste; Thoughts are not facts; Mindful movement; Homework</p>			<ul style="list-style-type: none"> • Feedback: mindfulness in everyday practice • Mindfulness Practice – mindful movement - describing without judging, distinguishing between thoughts and facts • Mindful sitting – focusing on listening - taking turns to listen non-judgementally. • Reflection – Draw/ Write, group feedback
10	<p><u>Session 11</u>: mindfulness in everyday life, review of previous sessions, integrating acceptance of our experiences through mindfulness.</p> <p><u>Session 12</u>: generalizing mindfulness to everyday life, exploring and sharing personal experiences of the program, brief 'graduation ceremony'</p>			<ul style="list-style-type: none"> • 00 – Feedback, Review • 10 – Mindfulness Practice – mindful movement (yoga) • 25 – Mindful sitting –Loving-kindness practice • 35 - Draw/write, group feedback, 55 – Graduation Ceremony – with class teachers present
				<p>Post-course interviews</p> <p>The Mindfulness Acceptance and Awareness Questionnaire is to be completed again.</p>

Notes from work shadowing a mindfulness teacher

I observed four introductory sessions at a primary school in Greenwich. All were done on Thursday 4 March 2010 between 9:30am and 12:30pm. This course was being run by The Bodhi Tree, an organisation to develop mindfulness based practices in schools by Srivati, an order member at the London Buddhist Centre. Initially the school requested some work with a small group of individuals who were struggling to stay calm and focus. Srivati had done an hour session at the school's staff meeting to communicate mindfulness to staff and to introduce the course to them. The sessions that I observed were 20 to 30 minutes long. I observed the first 5 – with Years 6, 1, 4, 5 and 3. Each class had about 20 pupils. The general format of the session and my interpretations are:

Section	Content – how explained	How pupils responded	To incorporate in mindfulness course
Introduction	Names Explaining the days – when the sessions will be and for how long.	Year 1s had just come back from assembly and had a cover teacher- so they were fairly restless and they were young. It was useful to use a stop signal (for silence) that the teacher used – holding up the hand, palm towards the children.	Introduce different aspects of mindfulness It is useful being an EP and having that experience of a range of ages and capabilities – having observed several year groups are familiar with the kinds of behaviour in a classroom.
What is mindfulness?	Have you heard that word before? What do you think it means? What is meditation? Mindfulness is a kind of concentration that is relaxed and you are absorbed, aware of things. Explaining that “I can’t do it for you, I can only tell you what to do” and that this is like an experiment – to see what happens . Importance – to help keep you safe and also in your relationships with others.	<ul style="list-style-type: none"> • Quiet space • Relaxing, peace • Being calm 	There needs to be an introduction, so that the intention of the participants is clear, that they are expected to engage in this themselves with an open, curious attitude similar to as though they are conducting an experiment with their minds.
Spaghetti Game	A game with a piece of spaghetti - passing it around the class, aiming to keep it in one piece.	<ul style="list-style-type: none"> • Year 1 - • Year 3 - a much more settled classes, they even passing 	Can appeal to more kinaesthetically orientated learners.

Section	Content – how explained	How pupils responded	To incorporate in mindfulness course
	<p>Who thinks that it will break? Who thinks 50-50? And who thinks that it'll be the same length?</p> <p>"The secret is to be quiet and to concentrate"</p> <p>This highlights the importance of paying attention, teamwork and being gentle.</p>	<p>strand around with eyes shut and got about 2/3 way around before the strand broke.</p> <ul style="list-style-type: none"> Year 6 - concentrated well 	
Jar of Soil and Water	<p>Shake the jar – and leave it to settle.</p> <p>Asking: What do you think is in the jar? What do you think will happen?</p> <p>This is like your thoughts and as you sit still it helps your thoughts to settle. "Keeping still physically helps to settle the mind."</p> <p>It won't happen automatically, you need an anchor.</p>	<p>This visual aid was particularly useful, indicating that the mind gets jumbled around and it can be very difficult to think clearly.</p> <p>Furthermore, sitting still and giving yourself time helps to settle the thoughts so one's awareness becomes clearer.</p>	<p>Can use more visual aids – and analogies.</p> <p>There may be more information in using a visual aid.</p> <p>Also, she explains that an anchor is needed, so this visual aid leads onto the next teaching point.</p>
Singing bowl	<p>Ring the singing bowl and listen to sound.</p> <p>"While it was ringing, is it true that that was nearly all you were concentrating on/ thinking about?" Communicate the importance of focusing on one thing at a time - it helps to settle our thoughts. It helps to use an anchor – to keep the mind in one place – "When we meditate we need to focus on one thing at a time."</p>	<p>Pupils responded well to the sound of the singing bowl and seemed to be captivated by its clear sound. It was also very useful to mark the beginning and end of practice.</p> <p>Also it was used as a practice in concentration itself. Younger children particularly enjoyed it.</p>	<p>As part of the mindfulness intervention, I will use a singing bowl. I have a small one on loan that I shall use now I have seen it in action – I can also get children to see how long they can listen for, until the sound fades away.</p>
Posture	<p>Start with posture: Feet: Flat on floor; Back: Straight up; Buttocks: Back against the chair; Neck: Relaxed – chin neither up nor down; Breath: be aware of breathing - deep breathing, then normal, relaxed breathing.; Hands: in lap or right over left palm with</p>	<p>Pupils responded well, you could see that the majority of the class was able to follow the instructions and trust their posture appropriately. Most of the pupils were willing to close their eyes and</p>	<p>Posture is important and helps the participants to ground themselves in the present moment through the experiences of their body sensations. So this will definitely be incorporated into</p>

Section	Content – how explained	How pupils responded	To incorporate in mindfulness course
	thumbs touching; Eyes: have a look around to see everyone and then close them.	you could see them visibly relax.	the mindfulness intervention.
3 minute breathing space practice	It's a bit like meditation. Focus on posture – eyes closed – a bit of body scan, from feet, legs to body and arms and head and face Then breathing Then sounds When you are ready open your eyes	Year 5 was especially challenging regarding this practice – and needed to be refocused and settled, demonstrating patience, acceptance and positivity towards them.	Need to focus on getting a still, comfortable, upright posture. It helps to have other staff members present so that you know that you have some support if behaviour gets too challenging.
Endings	Feedback: hands up if you found that: 1. Calm, quiet and peaceful 2. Hard, you weren't sure what you were doing, restless 3. You felt tired, ready to fall asleep	The different year groups answered approximately: Year 5: 1) 80% 2) 10% 3) 60% Year 4: 1) 90% 2) 1 person 3) 70% Year 6: 1) 100% 2) 1 person 3) 50%	The experience of the children depends on themselves, individually and also on the quality of the teaching, class control, participation of whole class (so distractions are minimised).

My reflections on having done this observation were that:

- I have skills to do this - I can be confident about being able to teach mindfulness in the intervention.
- Using Visual Aids – such as the jar of muddy water - can help to communicate the concepts of concentration and attention and the relationship between that and sitting still and focusing on the body and breath and sounds.
- Can also use the accelerated model of teaching – appealing to visual, auditory and more kinaesthetic style learners.
- Observing this course has come at a good time, when I am just beginning to run the course and can use the ideas straight into the class situation. I realise that this is my first time doing this, so I am still developing my materials and understanding of how children learn this. I could also look at some of the other documentation on teaching mindfulness to children – and consider how the ideas are communicated to them.
- It is useful to have other staff members present to support with any possible behaviour difficulties – in this way the class as a whole gets to benefit.

Planned version of the MBAT intervention

Here is an outline of the 10 session course that was planned. Each session aimed to maximise the opportunity for developing mindfulness, defined as a way of developing awareness of present moment events with kindness and acceptance (Kabat-Zinn, 1994).

Each session began by introducing the theme for that session, then the participants were guided through some mindful movement, a meditation (sitting practice) and a body scan. The children were then invited to write or draw about their experiences. There was usually a short plenary at the end.

	Key Aims developed from other courses	Timings
1	<ul style="list-style-type: none"> Introducing mindfulness– meaning of mindfulness, awareness and acceptance. Mindfulness Acceptance and Awareness Questionnaire Practice – Still Quiet Place – 5 mins sitting Draw/ write exercise Importance of homework 	<ul style="list-style-type: none"> 00 – Consent forms 10 – CAMM 20 – Sitting mindfulness practice 25 – Draw/write 30 – Discussion of experiences
2	<ul style="list-style-type: none"> Dealing with barriers to practice – what would it be like to be mindful Mindful Eating – Raisin Exercise Mindful Sitting – mindfulness of the breath Draw/ write exercise Homework: Eat a snack mindfully 	<ul style="list-style-type: none"> 00 – What is Mindfulness? 10 – Mindful movement 20 – Body Scan 30 – Mindful eating – Raisin 40 – Draw/ Write 50 – Close
3	<ul style="list-style-type: none"> Concept of “Funny Mind” - differentiating thoughts, feelings and body sensations Mindful movement – yoga and body scan Mindful sitting – mindfulness of the breath Draw and Write about the experience - new stickers for home Homework: more stickers – with questions - for reminders to practice breathing 	<ul style="list-style-type: none"> 00 – Concept of “Funny Mind” – differentiating thoughts, feelings and body sensations. 10 - sitting practice - breath 20 - mindful movement 30 - body scan 40 – draw/ write practice 50 – close of session
4	<ul style="list-style-type: none"> Feedback – Noticing “funny mind” internal dialogue Mindfulness Practice – mindful movement (yoga) then body scan Mindful sitting – Mindful hearing –listening to identify thoughts, feelings and body sensations – “funny mind” (internal dialogue) Draw and write about experience Homework: Body Scan - Breath 	<ul style="list-style-type: none"> 00 – Teaching Section – Funny mind continued 10 – Mindful movement 20 – mindful sitting - listening to internal dialogue 30 – body scan 40 – Draw/ Write practice 50 – Close of session

	Key Aims developed from other courses	Timings
5	<ul style="list-style-type: none"> • Feedback – Noticing “funny mind” • Mindful movement with body scan • Mindful sitting – awareness of thoughts – picture of sky and clouds • 3-minute breathing space - on feelings • Draw/ write about feelings • Homework: 3 m Breathing Space 	<ul style="list-style-type: none"> • 00 – Awareness of thoughts as sky and clouds • 10 – mindful movement • 20 – sitting practice • 30 – body scan • 40 – Draw/ Write practice • 50 – Close of session
6	<ul style="list-style-type: none"> • Feedback – Differentiating describing from judging • Mindfulness Practice – mindful movement (yoga) with body scan exercise. • Mindful sitting –Mindful seeing- developing a non-judgemental attitude • Writing about the experience, then group feedback • <i>Homework: Noticing reactions, mindful responding; End</i> 	<ul style="list-style-type: none"> • 00 – Teaching Section - developing kindly awareness • 10 – mindful movement • 20 – mindful sitting - with kindness towards oneself • 30 – body scan • 40 – Draw/ Write practice • 50 – Close of session
7	<ul style="list-style-type: none"> • Feedback – Differentiating describing from judging • Mindfulness Practice – Mindful movement, including mindful walking, then exploration with, for example, being a flower opening, a tall tree or a butterfly. • Mindful sitting –Mindful seeing- developing a non-judgemental attitude - stillness with eyes open. • Draw/ Write, feedback • <i>Homework: mindfulness in everyday practice; End</i> 	<ul style="list-style-type: none"> • 00 – Teaching Section - developing a non-judgemental awareness • 10 – mindful movement with awareness • 20 – mindful sitting - developing acceptance • 30 – body scan with exploration of the body with an attitude of acceptance • 40 – Draw/ Write practice • 50 – Close of session
8	<ul style="list-style-type: none"> • Feedback – mindfulness in everyday practice • Mindfulness Practice – mindful touch, with eating- learning to stay present. • Mindful sitting –Loving-Kindness – being present, with acceptance and awareness. • Draw/ Writing, group feedback • <i>Homework: Loving-Kindness for stressful situation</i> 	<ul style="list-style-type: none"> • 00 – Teaching Section - applying mindfulness in everyday contexts • 10 – sitting practice developing loving-kindness • 20 – mindful movement • 30 – body scan • 40 – Draw/ Write practice • 50 – Close of session
9	<ul style="list-style-type: none"> • Feedback: mindfulness in everyday practice • Mindfulness Practice – mindful movement • Describing without judging, distinguishing between thoughts and facts • Thoughts are not facts • Mindful smelling/ tasting • Reflection – Draw/ Write, group feedback • <i>Homework: bring object on what class means to you; End</i> 	<ul style="list-style-type: none"> • 00 – Teaching Section • 10 – Mindful sitting – focusing on listening - listening non-judgementally. • 20 – mindful movement - with awareness of the thoughts and feelings and body sensations • 30 – body scan • 40 – Draw/ Write practice • 50 – Close of session

	Key Aims developed from other courses	Timings
10	<ul style="list-style-type: none"> • Review of previous sessions • Mindfulness in everyday life: • Integrating acceptance of our experiences through mindfulness. • Exploring and sharing personal experiences of the program • Brief closing ceremony 	<ul style="list-style-type: none"> • 00 – Feedback, Review – focus on everyday life • 10 – Mindful movement • 25 – Mindful sitting – Loving-kindness practice • 35 - Draw/write, group • 55 – Grad'n w. teachers
	Post-course interview	

The pilot and implications for the MBAT intervention

A pilot was conducted with 2 participants to trial the initial interview schedule, the MAAS questionnaire, 3 sessions from the MBAT course and the schedule for the final interview. This was completed over three sessions, as follows.

Session	Aims	Content	Implications for the mindfulness-based intervention
1 1/2/10 (am)	Complete the initial interview, including with a three-minute breathing space.	<u>Initial individual Interview</u> <ul style="list-style-type: none"> • Introduction - What is mindfulness? What do you think it means? Why useful? • Completing the MAAS Questionnaire • Mindfulness Practice – 3 minute Breathing Space – focusing on the body and posture and then the breath and then sounds. • Drawing about the experience 	<ul style="list-style-type: none"> • The participants were a bit nervous, so it helps to take time to put them at ease. It is useful having a quiet space in which to interview them as this helps. • One participant was a bit nervous about drawing. • It helped to go through the MAAS step by step, getting information qualitatively to understand the children's interpretations of the items.
2 8/2/10	Session to include a range of mindfulness based practices, to explore how they may be implemented	<ul style="list-style-type: none"> • 00 – What is mindfulness? I • 10 - Mindful movement practice • 20 – Mindful Sitting – focusing on the breath • 30 - Mindful Eating - the raising exercise • 40 - Body Scan practice • 50 - Drawing or writing about the experience • 60 - Group feedback, end 	<ul style="list-style-type: none"> • It useful to have a carpeted floor particularly for doing the mindful movement practices and the body scan. • It would be useful to have some ground rules to guide their behaviour - one participant was very chatty • The session time goes very quickly and transitions need to be guided carefully, since these are moments when their attention on the content is more likely to be lost.
3 11/2/10	Session to include mindfulness practices and final interview questions	<ul style="list-style-type: none"> • 00 – Feedback - what is mindfulness? • 10 – Mindful movement practice • 20 - Mindful sitting – focusing on the breath • 30 – Body Scan • 40 - Drawing and writing about the experience • 50 - Final interview questions - questions about their drawings and experiences of mindfulness • 90 - End (return to class) 	<ul style="list-style-type: none"> • This second session was done in a room without a carpeted floor and the children did not want to do a body scan understandably. So this was left out and the mindful sitting practice was extended. • The children wanted to see what each other is drawing, they became friends and seemed inspire each other.

Final version of the MBAT intervention

Following changes made as a result of the pilot, a final version of the Mindfulness-Based Attention Training intervention was developed and implemented. This version is described session by session:

Sessions	Aims are to:	Session Content	Summary of implications and reflections
1 Thursday 25 and Friday 26 February	<ul style="list-style-type: none"> Obtain consent Introduce mindfulness Complete Questionnaire Do the sitting practice Draw/ write 	<u>Initial individual Interview</u> <ul style="list-style-type: none"> Introduction - What is mindfulness? What do you think it means? Why useful? Mindfulness Acceptance and Awareness Questionnaire Mindfulness Practice – 3 minute Breathing Space – focusing on the body and posture and then the breath and then sounds. Drawing about the experience 	<ul style="list-style-type: none"> Mindfulness Acceptance and Awareness Questionnaire Stickers Colouring pens Booklet for them to personalise Transcript for Still Quiet Place Letter home to parents
2 Monday 1 March	<ul style="list-style-type: none"> Settle into the routine of course Draw again 	<ul style="list-style-type: none"> Mindfulness Practice – 3 minute Breathing Space – focusing on the body and posture and then the breath and then sounds. Drawing about the experience 	
3 Friday 5 March	<ul style="list-style-type: none"> Draw again Set the Rules Introduce Mindful Movement, Body Scan and 3 minute Breathing Space 	<ul style="list-style-type: none"> Benefits of mindfulness Mindfulness Practice – Mindful Eating Mindfulness Sitting – mindfulness of the breath Make stickers for putting around at home Draw and write about the experience, then group feedback Homework: sticking your stickers in places to remind you to practice 	
4 Monday 8 March	<ul style="list-style-type: none"> Introduce Mindful Eating 	<ul style="list-style-type: none"> Introducing the practices Dealing with barriers to practice – what would it be like to be mindful 	First time in the main room – Drawing individually – seating plan introduced and they wanted to know where they will be sitting. Having a clear seating plan worked so that they all sat in places where they could concentrate

Sessions	Aims are to:	Session Content	Summary of implications and reflections
5 Friday 12 March	<ul style="list-style-type: none"> • Introduce Spotlight of attention (inspired by the MISP conference) • Quality of Attention (Jon Kabat Zinn) 	<p>(The session content was affected ideas gained by the Mindfulness in Schools conference, on 11/3/10)</p> <ul style="list-style-type: none"> • Intro to Spotlight of attention • Narrow versus wide attention • 	<p>They looked at what helps them to get a narrow spotlight – interest and curiosity. Thinking about a pet – or something kindly – to develop kindly awareness</p> <p>They really enjoyed lying down Need to focus on encouraging a sitting meditation practice – with more smooth transitions</p> <p>Good to link to the kindness towards oneself – and encouraging them to appreciate the specialness of the present moment.</p>
6 Monday 15 March	<ul style="list-style-type: none"> • Introduce Mindful Eating – Slowing down and savouring experiences 	<ul style="list-style-type: none"> • Review of spotlight of attention and mindfulness • Review of how home practice is developing – and to think of ways in which they can develop practice at home • Raisin Exercise – repeated– slowing down and savouring experiences • Continue to practice movement, body scan and sitting mindfulness 	<p>Lined up before coming in – to focus their attention from the start – taking it to their breath and then their feet.</p> <p>I noticed that Eric was drawing something about football – that he likes and gets a sense of flow with this.</p>
7 Friday 19 March	<ul style="list-style-type: none"> • Introduce 'Flow'– how to develop it • Attention – with feelings kindness • Differentiating thoughts, feelings and sensations 	<ul style="list-style-type: none"> • Looking at motivation to practice – how it helps with other skills - flow • Developing further kindly awareness and interest in one's physical self moment by moment • Developing the 3 minute breathing space –Body, Breath, Sound.. and to include Thoughts and Feelings • Homework stickers – with mindfulness on them 	
8 Monday 22 March	<ul style="list-style-type: none"> • Practice stepping back from thoughts that hijack you (See p.70 in 	<ul style="list-style-type: none"> • Choices – drawings scaling of what moves your attention • Things we want and don't want – avoidance and craving – aim to develop an increased awareness of thoughts feelings and body sensations • Sitting meditation - Making a commitment to focus on the 	

Sessions	Aims are to:	Session Content	Summary of implications and reflections
	Greco's book And p.224 MBCT for depression)	breathing and noticing what takes you off it. Just noticing the things that our awareness focuses on – and marking which ones you chose and which ones you didn't choose. <ul style="list-style-type: none"> Feedback at end.. off to play. 	
9 Friday 26 March	<ul style="list-style-type: none"> Introduce allowing, accepting and being with difficult emotions 	<ul style="list-style-type: none"> Recap of the rules Having a clearer experience of being in the present – what helps us to focus and what doesn't Things we like doing and things we don't – well-wishing to ourselves and to friend and to someone we may have some difficulties with making choices and developing our 'muscle' of control 	Comment: need to be better at the group management so that the group as a whole can experience the practices in a positive way.
10 Monday 29 March	<ul style="list-style-type: none"> Pull together the practices Final group session - goodbyes to the group 	<ul style="list-style-type: none"> Motivation – why are we doing this? Mindful Movement – benefits – fitness, releasing tension, relaxation Body Scan – Relaxation – Moving the flashlight of attention around the body Kind awareness – thinking about someone being kind to you – and being kind to someone. Mindfulness meditation – giving and receiving kindness and acceptance Writing a letter about all the things in your life that you are happy and grateful for – about yourself and others. Ending - What did you gain? Ideas for practicing - stickers 	
Tuesday 30 March and Wednes- day 31 March	<ul style="list-style-type: none"> Final Interviews 	<u>Final individual Interview</u> <ul style="list-style-type: none"> What is mindfulness to you now? Mindfulness Acceptance and Awareness Questionnaire Reflecting on previous drawings Mindfulness Practice – 3 minute sitting practice Final drawing on mindfulness experiences and discussion 	

Appendix D: Resources for the MBAT intervention

Script for the “3 Minute Breathing Space”

This practice was used in the mindfulness-based intervention and both interviews. Each sentence is to be read slowly with pauses in between. This is adapted from a script by Srivati (The Bodhi Tree, London Buddhist Centre) (Srivati, 2011).

1. Preparation - *Begin by sitting comfortably, upright yet relaxed. Place your feet flat on the ground. Put your hips/bottom against the chair back. Feel your sitting-bones on the chair. Let your back be long, without being rigid or slouched. Rest your hands on your legs or in your lap. Have your chin slightly tucked or tilted downwards. Now that you're aware of your body, also being aware of breath in the body. When you're ready, close your eyes* (Pause for 15 seconds).
2. Focusing on the body sensations (60 seconds) *We become aware of our feet on the floor. And our sitting bones on the chair. Relaxing the lower body. Allowing the chair to support our weight. Sitting with a long back, shoulders relaxed. Aware of our arms. And our hands relaxing, resting in our laps. Being aware of the head, our face at ease, and the jaw relaxed. Relax the throat, relax the heart and relax the belly.* (Pause for 15 seconds)
3. Focusing on the breath - *Now, breathing naturally. We notice the breath as it comes and goes from the body. You might notice how the breath moves the chest and the belly. We continue to follow the breath, like watching the waves of the sea, coming in and going out again. If you're thinking of something else, that's ok. Just notice that and gently bring the mind back to noticing the body and breath* (60 seconds)
4. Focusing on sounds - *Now we begin to notice sounds, some from outside the room, some closer - simply noticing sounds. Remaining sitting comfortably, not trying to do anything. Notice how you are now.* (Pause for 30 seconds).
5. Ending - *Then when you're ready, open your eyes.*

“Five Mindful Rules” for the group sessions

1. Be caring and kind to others
2. Stay quiet when someone is talking
3. Hands up if you want to speak
4. Be silent during the mindfulness practice.
5. Sit silently in the “Quiet Space” if you are opting out.

Script for eating mindfully

This practice involves mindfully eating some fruit, for example apples or tangerines. In the research, the participants were given a few raisins to eat mindfully. Initially, the children simply looked at the food offered and described what they saw in detail, including colour, texture, features and smells, while observing what was happening in them physically, including in

their mouths as they did this (Saltzman & Goldin, 2008). Then they were encouraged to close their eyes and slowly take a single bite, paying attention to what was in their mouths and noticing any flavours and textures. As they chewed slowly, they were encouraged to notice how the tastes changed and the tongue and teeth moved and the urge to swallow and to feel the swallow as the food moved down their throats. This was practiced bite by bite, as they were invited to take their time and develop a sense of curiosity about their experience of eating. They also paused and felt how they felt after eating.

Practice for developing kindness and self-compassion

This practice is about developing positive feelings and thoughts towards oneself and to others. It is essential that the mindfulness teacher was personally experienced in this practice to be able to generate a sense of authenticity. Firstly, the children were invited to recall a time when they felt loved by someone, such as a parent, carer, relation, teacher, pet. It could be a simple moment, such as a hug or a smile. They were encouraged to really sense the physical sensation of kindness of the moment. Then they were invited to imagine sending the love to the person or animal who loves them, to simply imagine receiving and sending out positive feelings and to feel the feelings flowing between themselves and the person or animal concerned.

This could be repeated with other people known to the child. They could also practice sending positive thoughts or feelings to someone they did not know also, including, for example the dinner ladies or the postman. They can also try to think about someone they were having difficulty feeling positive towards, for example other children with whom there may have been difficulties in their relationship. The exercise might be ended by asking the children to send love to themselves and to feel their own positive feelings returning to them. The final step was to send positive feelings to the whole world and to feel the whole world positivity returning to them (Saltzman & Goldin, 2008).

3 Minute Breathing Space

1. **Posture**

Place your feet flat on the floor. Bring a friendly awareness to the soles of your feet. Keep your back upright.

2. **Body**

Be aware of your body with an open and friendly attitude. Relax

3. **Breath**

Notice your breathing, the movement of your chest or tummy.
Breathe in for a count of 7 and out for 11.

4. **Mind and feelings**

With friendly awareness, notice feelings and thoughts.

5. **Whole experience**

Be aware of the whole experience of being present - your contact with the ground, your body, breath, thoughts, feelings, sounds and the space around.

Appendix E: Consent forms

Consent form for parents

Dear.....

I am an educational psychologist who is completing the applied doctorate in educational and child psychology. I am researching children's experiences of participating in a mindfulness course. Mindfulness is a way of paying attention to events in the present moment non-judgementally. Previous research has shown that increased levels of mindfulness are associated with increased well-being, attention and self acceptance and decreased levels of anxiety and depression.

I will be running a 10 week mindfulness-based course at [name of school], with children who may benefit from additional help to improve their attention or behaviour. This will be a small group, of between 5 and 7 children. All children will be interviewed beforehand and will complete a questionnaire. Each session will be an hour-long, during which the children will learn practices to help them concentrate and develop self acceptance. They will also be expected to write about and discuss their experiences.

I will be recording each session and making notes. I will keep all the recordings and notes in a safe lockable place. Also, later, when I report the research, all the details will be made anonymous. The content of the sessions will be kept confidential, unless there is a risk of someone being hurt or harmed.

I would like to include your child in this research. If you are happy for me to do so, please sign the form below. If there are any questions, please contact me on at the Educational Psychology Services, [address of service] or [phone number].

I agree to my child participating in this research project.

I am aware that I may withdraw my consent at any time.

Signed.....Parent/Carer Date

Consent form for the participants

Hello (child's name),

My name is Bernadette (Ms Carelse) and I work as an educational psychologist. I'm doing some research on mindfulness. Mindfulness is a way of focusing your mind on whatever is happening in the present moment, in a non-judgemental, excepting way. Some people have found that when adults and children do this, it helps them to concentrate and to manage difficult feelings.

I will be running a 10 week course at your school to find out what it would be like for children at the school to practice mindfulness. This 10 week course will mean that we meet once a week for an hour at your school. We will practice different ways of paying attention to whatever is happening in each moment in an accepting way. You will be invited to write about and discuss what your experiences are of doing this, so that it will help us to teach this to children in better ways. They will be some practices are you to try out at home too.

At each session, I will be recording sessions and making notes on whatever we do in the sessions, including any discussions that we have. I will keep all the recordings and notes in a safe lockable place. Also, when I later talk about the research and write reports I will always change anybody's name is so that their views will be anonymous. Also, I will not talk to anyone you know about what you tell me unless you talk about the risk of someone being hurt or harm. If so, then I will need to talk with you first about what could be done to help.

If you would like to be on the course and to learn mindfulness practices to help with attention and managing feelings, then please sign the form below. If you decide to say yes you can do whatever parts of the course that you want to and you can leave at any time.

My name is

I would like to join the mindfulness course.

I know that I can do the parts that I would like to do and can change my mind at any time.

Signed..... Date

Letter to parents to thank them

Dear Parent/ Carer,

Re: Mindfulness Course at [Name of School]

Thank you for having given permission for your child to participate in this research. Here is some information about what we did (below).

If you would like to know more about this research, please contact me on [work phone number] or [work email address].

Also, if you are happy for me to do so, I would also like to speak to you about your experiences of having your child participate in this research. Please let me know if you are interested.

Best wishes,

Bernadette Carelse
Educational Psychologist

Mindfulness Research

As part of my work as an educational psychologist, I am completing an applied doctorate in educational and child psychology. This research is about children's experiences of learning 'mindfulness', a way of paying attention to events in the present moment with a sense of acceptance. Previous research has shown that increased levels of mindfulness are associated with improved well-being, attention and self acceptance and lower levels of anxiety and depression.

With the consent of [the school's Head Teacher], I ran a 10 session course on mindfulness at [School's name]. It was designed for children who may benefit from additional help to improve their attention. In all, 6 children took part. They were interviewed beforehand, including completing a questionnaire. They then took part in 10 twice weekly sessions, that were about 45 minutes long. During this time, the children learnt practices to help develop their concentration, awareness and acceptance (kindliness). They were also invited to discuss, write or draw something about their experiences. At the end of the course, they were interviewed about their experiences.

I have recorded each session, made notes and taken scans of the drawings that they made. This information will be kept in a safe lockable place and any details will be made anonymous. The content of the sessions will be kept confidential, unless there is a risk of someone being hurt or harmed. The results of this research may be published.

Appendix F: Child Acceptance and Mindfulness Measure (CAMM)

The CAMM is a 25-item measure of mindfulness. It assesses the extent to which children and adolescents observe internal experiences, act with awareness, and accept internal experiences without judging them (Greco, Dew, & Ball, 2005). The participants indicate how true each item reflects their experience using a 5-point scale ranging from 0 (Never true) to 4 (Always true). A total acceptance-mindfulness score can be generated by reverse scoring negatively worded items – numbers 2, 4, 5, 7, 8, 10, 11, 15, 16, 17, 18, 19, 20, 21, 25- and summing the item total, yielding a possible range in scores from 0-100. Higher scores indicate higher levels of acceptance and mindfulness. Regarding reliability, the CAMM demonstrates good internal consistency, with Cronbach's $\alpha = .87$. Research using the CAMM suggests the measure has good concurrent validity.

These are the 25 items:

1. I notice small changes in my body, like when my breathing slows down or speeds up.
2. I get upset with myself for having feelings that don't make sense.
3. I pay attention to my muscles and notice when they feel tight or relaxed.
4. At school, I walk from class to class without noticing what I'm doing.
5. I do things without thinking about what I'm doing.
6. I pay close attention to my thoughts.
7. I try only to think about things that make me feel happy.
8. I keep myself busy so I don't notice my thoughts or feelings.
9. When I'm doing something, I focus only on what I'm doing and nothing else.
10. I tell myself that I shouldn't feel the way I'm feeling.
11. When something good happens, I can't stop thinking about it.
12. When I take a shower or bath, I notice how the water feels on my body.
13. I notice my thoughts as they come and go.
14. When I'm eating, I notice the way it feels to chew my food.
15. I push away thoughts that I don't like.
16. It's hard for me to pay attention to only one thing at a time.
17. I think about things that have happened in the past instead of thinking about things that are happening right now.
18. I get upset with myself for having certain thoughts.
19. I do many things at once.
20. I think about the future.
21. I think that some of my feelings are bad and that I shouldn't have them.
22. I notice when my feelings begin to change.
23. I pay close attention to whatever is happening right now.
24. I notice how things around me smell.
25. I stop myself from having feelings that I don't like

Appendix G: Draft Interview schedule

Draft schedule for the initial interview

Introduction - Hello, my name is Bernadette (Ms Carelse) and I work as an educational psychologist. I'm doing research on mindfulness, which is a way of focusing your mind with a sense of acceptance and without making any judgements. You can decide if he wanted to talk to me or not. You do not have to say yes. If you do say yes you do not have to do the whole interview. We can also stop if you want to or if you need to have a break. If you do not want to answer some of the questions you can just say pass. If you decide that you would like to join in the research, you are welcome to talk about this with your parents or with a friend. I will be recording the sessions and making notes as we go along. I will keep all the tape recordings and notes in a safe lockable place. Also when I later talk about the research and write reports are always change anybody's names so that their views will be anonymous. Also I will not talk to anyone you know about what you tell me, unless you talk about the risk of someone being hurt or harm. If so then I need to talk with you first about what could be done to help (Fraser, Lewis, Ding, Kellet, & Robinson, 2004).

Here guidance on the interview questions:

- What do you think mindfulness is?
- Have you ever done anything like yoga? Meditation? Relaxation?
- How do you concentrate? What is it like to focus your attention on something? What do you notice when you do that?
- What does acceptance mean? How does it feel when you are accepted?
- What do you notice when it is more difficult or easy to concentrate?
- What makes it easier? What things do you do to help yourself pay attention?
- What kind of things do you like and accept about yourself?
- What things would you like to change?
- How do you feel about yourself generally?
- Why would you like to participate in this research?
- How do you think it might help you? With concentration? With behaviour?

Draft schedule for use during each session

These questions are useful to clarify children's experiences of the mindfulness-based practices. They can be asked during the practices and after them.

Mindful movement (yoga) - This session involves moving in gentle stretches, with awareness, attention and self acceptance. Various open ended questions may be asked, for example (Semple & Lee, 2008)

- How did your body feel as you moved it? What did you notice?
- Was there anything different from the way you usually move?
- How would you describe what you experienced?

- How did you notice that your mind had wandered? What did you do after you found yourself doing this? What kind of things did you do to help you bring your mind back to focus?
- What ways does your body feel different to how it felt before the Mindful Movement?

Mindful sitting - These questions are used to elicit children's responses after the mindful sitting practice, during the feedback discussion. For example if the child reported feeling itchy during a body scanning exercise, he or she may be encouraged to describe the thoughts, feelings and body sensations that were observed as this occurred. Such may include (Semple & Lee, 2008):

- Where was the itchy body sensation? What did it feel like?
- Did thoughts arise with the sensations? How did the thoughts change?
- Were there any feelings stuck to the thought about feeling itchy?
- Did those feelings affect the itchy sensation?
- Was there an urge to move or scratch? What was it like sitting through the itch?

Homework - Homework is an essential part of the course and help children learn to develop their skills in everyday life. Records of their experiences of doing the homework are discussed at the start of each session. They will also be handouts on practices for them to do at home (Saltzman & Goldin, 2008)

Draft schedule for the final interview

Here's an outline of questions for children after participation in the mindfulness course.

- How would you describe mindfulness?
- How do you concentrate? What is it like to focus your attention on something? What do you notice when you do that?
- What does acceptance mean? How does it feel when you are accepted?
- What do you notice when it is more difficult or easy to concentrate?
- What makes it easier?
- What things do you do to help yourself pay attention?
- What kinds of things do you like and accept about yourself?
- What things would you like to change?
- How do you feel about yourself generally?
- What was it like to participate in mindfulness group?
- What went well in the group? What could have been different? And how?
- What did you learn? How did you learn it?
- How do you think it might help you? With concentration?
- How did it help you in your life?
- What sort of children would benefit from going to the group? Why?

Appendix H: Interview schedule used for the research

The interview schedule was amended following discussion at an IPA discussion group.

Interview schedule for the initial interview

1. Introductions - I introduced myself to the participants, reading through the consent letter, going through with them step-by-step, checking that they understand what it means. This letter introduces myself and briefly outlines the research. The main points that I communicate are that the child can:

- Decide if he or she wants to talk to me or not
- Decide how much of the interview he or she wants to do
- Let me know if he or she wants to stop or needs a break or wants to skip one of the questions
- Talk about his or her experiences with your parents/ carers or friends.

2. Obtaining Consent - I explain that I am going to:

- Record the sessions and make notes as we go along
- Keep all the tape recordings and notes in a safe lockable place.
- Change any names so that your views will be anonymous when I later talk about the research and write reports.
- Keep what you tell me confidential - meaning that I will not talk to anyone you know about what you tell me - unless you talk about the risk of someone being hurt or harm. If so then I need to talk with you first about what could be done to help.

Then I ask for their consent to participate in this research, including to taking photos of their pictures and publishing the results of the research (if the opportunity to do so arises). At this point the consent form may be signed.

3. Clarify their background to mindfulness. Mindfulness is introduced as a way of focusing on what is happening right now, in this moment. It is about noticing what kinds of thoughts and feelings come up and accepting them as they are.

- What do you think mindfulness is?
- Have you ever done anything like yoga? Meditation? Relaxation?
- What do you think it would be like to learn it?
- Why would you like to participate in this research?

4. Administer the Child Acceptance and Mindfulness Measure (CAMM).

5. Guide participant through a sitting mindfulness practice. Then ask the participant to draw or write about their experiences of the practice that they had just completed. Then refer to the schedule for eliciting their experiences of mindfulness using the drawings (below).

6. Finally, answer any further questions, thank the participant and end the session.

Schedule for eliciting children's experiences of mindfulness using their drawings

With a particular drawing in front of the participant, these and further follow-up questions were used to elicit an understanding of their experiences of mindfulness as expressed through their drawings:

- If they chose to draw, they are then asked about their drawing in the following way:
 - Please tell me what you have drawn.
 - (If several components) what are the relationships between them?
 - Are there any significant features/ colours/ shapes etc?
 - Are there any emotions/ sensations (sound/ taste/ touch/ smell) that you associate with this drawing? Can you tell me what these are?
- What does mindfulness meant to you?
- What was it like for you to do the mindful movement/ sitting/ listening? What body sensations did you experience? Were there any accompanying thoughts? Feelings?
- What is it like to pay attention to events in the present moment in an accepting way?
- What is it like to learn and to practice doing this?
- How was it for you to describe your experiences of learning mindfulness?

Interview schedule for the final interview

1. The quantitative data is gathered through administering the Child Acceptance and Mindfulness Measure (CAMM).
2. The qualitative aspect of the data gathering takes place, showing the participant the drawings or writings that they did during the mindfulness-based intervention. For each of the drawings, the schedule for eliciting their experiences of mindfulness (above) is used.
3. The participant is guided through a sitting mindfulness practice.
4. The participant is asked to draw or write about their experiences of the practice that they had just completed.
5. The schedule for eliciting their experiences of mindfulness using the drawings (above) is then used.
6. Any further questions are answered
7. The participant is thanked, given a letter to take home to their parents and the session ends.

Appendix I: Sample notes from Reflective Diary

This extract details the initial interviews and the first session of the mindfulness course:

Subject	Date	Reflections Content
Reflections on the initial interviews – Session 1 of the 10 sessions	25/2/10	Initial Interviews (Session 1) – Notes before the initial interviews <ul style="list-style-type: none"> • I've arrive and it's a little chaotic at school – parents evening • Struggles finding a space – but found somewhere • Some of consent forms have come home – and it's parents evening this evening, but I have one girl to work with and I m ready to start. • Am ready to go, am setting up – with the consent forms – for children, for adults etc.
	25/2/10	Initial Interviews (Session 1) - Reflections after the second interview (with Barbara) <ul style="list-style-type: none"> • Have done two interviews – the first participant withdrew, so really this was the first interview reflections. • One child didn't speak much – had some mindfulness experiences previously • Setting is important – need to sort out space in schools • Have done three interviews. The last child was very quiet • Can be noisy in the environment – in an open plan space just have screens around her – people can came into space and be heard. • Really good having drawings but some are struggling to have drawings – and that they'll be useful a the end of the course – learnt from another IPA researcher (Pnina Shinebourne), who looked at people's experiences of going through rehab. Notes parallels between rehab and intervention course (laughs)
	25/2/10	Initial Interviews (Session 1) - Reflections after the third interview (with Fiona) <ul style="list-style-type: none"> • I've done three interviews – last girl was very quiet. Was weird – seemed to be very much her first experience • Was noisy when doing the meditation. People can just come in. It is open plan just have screen around was the best space that there was.
	26/2/10	Initial Interviews (Session 1) - Reflections before final two interviews <ul style="list-style-type: none"> • Back at the school Friday morning – to do sixth interview – in the same space realise that it can be noisy environment – environment is quite important • Permission to work with one of the children and need to check that I have permission to work with last child (7th boy) • I'm all set and realising that looking at that breathing space preparation that I could adapt to standard format for the three minutes breathing space

		<ul style="list-style-type: none"> And I should look at interviews and look at the kind of things that motivate the children and I was listening to someone and everyone got to focus on their work – it was a parent's evening last night – so maybe that is a real area about how to make a resolve, to develop your attention
	26/2/10	Initial Interviews (Session 1) - Reflections after final interview <ul style="list-style-type: none"> It's good having the drawings – even though some are struggling and we can talk about them at the end of the course – and bring them back to it. A bit about what I did with Pnina Shinebourne on those from Rehab. And (laughs) this is a bit like going through rehabilitation and enjoying experience done early on
Reflections on the course		Designing the course – reflections on the development of the course itself <ul style="list-style-type: none"> There needs to be clear ground rules so that there are some guidelines to which to refer that enable them to cooperate in the group itself. The participants cannot be interviewed with each other, they need to be interviewed separately, otherwise they share their ideas and individuality of their accounts is lost. Therefore, in the group sessions, feedback as a group will be kept to a minimum.
	1/3/10	Session 2 – reflections before the first group session <ul style="list-style-type: none"> Checking battery for recording - setting up for session – hoping that it goes well One girl didn't have permission – hoped that forms had been signed – hope that something works out properly. Set up room – no clock in room, will need one. I will pick up kids and start at 9:45. Rearranged rooms so that in better (bigger) room I've set up workstations for kids so they'll be doing the drawings – in pairs – with felt-tips as well – did shopping for that – did that at pound shop – little cost, so everything will work well. Other resources include flipchart paper. Plan is to do mindful movement and a bodyscan – space needed for everyone to lie down, sitting mindfulness 3 min breathing space, draw, write, share and the rules, great
	1/3/10	Session 2 – the content of first group session <ul style="list-style-type: none"> Introduction - I had just started recording the session, when SENCo came in and explained that one of the children was unable to do the mindfulness course. I mentioned that it would be fine for us to work with 6 children. I explained that mindfulness is about exercising that "muscle" that helps asks with refocusing our attention on anything that we want to. I explained that we will end up with a stronger "muscle" in our minds. I also explained that we need to work with ourselves gently and kindly and that would help. I explained that the first thing we will do is about the rules of the group since we have 10 sessions together. Then, we going to find that if they have any questions and look at the hands up if we want to speak. Then, each session will have a particular plan which I show them, including 4 things, a bodyscan, sitting mindfulness and then draw write and share practice. In this way they can write or draw about what

		<p>their experiences are about. Someone asks how long the mindfulness is going to last. I explain each sessions can be about 50 minutes. I also say that I imagine if a things in class that they have to get back to another person, asks how often and for how long the course will be, would only be for this term. I also explain this information. Someone asks about the times when the course will happen. Explain that it will be Monday mornings and Friday mornings.</p> <ul style="list-style-type: none"> • The rules of the mindfulness course - Then I go through the rules. Dudley reads that it's about being caring and kind to others. Someone else reads out, Calvin, another rule is about having the hands up if you speak.. Rule 4 is that everyone needs to be split the mindfulness practice. Rule number 5 is that they can sit silently in the quiet space if they want to have a break from practising. I also explained that if they cannot settle in the group are taught them they have the option of going back to class. Calvin said once if you break any of the rules. We discuss what would happen if they wanted to break the silence during the practice sessions. So I check if anyone might find that too difficult. I explained that when I done it with other children (pilot) that found that some children by very difficult not to say things without thinking. I also explained that I had tried some mindfulness practice with all of them during the interview and so it seemed to work. • Body - I asked them what they think mindfulness is about. And Adam explains that it's about concentrating. I tried to use the analogy of swimming. Calvin says that it's like floating in the water. And I explained that swimming is about moving your body in a particular way, so mindfulness is about learning how to concentrate. I asked them why they think this might be useful. Calvin says that it might be useful because it might make you aware of yourself. I ask if there's any other comments. Aaron says it might be useful because someone might find it hard to concentrate. I explained that all of us find it difficult to concentrate sometimes and that some of us find it easier than others. And this is about practices that we can make a choice about what we were concentrate our minds on. • Sitting mindfulness practice - So we move on to a breathing practice. I start by explaining about the posture for sitting mindfulness. "It's about getting your feet steady on the ground." Eric says that it is not too comfortable like this. "Yes?", I say. "To start with by getting your feet in contact with the floor. And then putting your hands on your laps and just feeling the floor. Hands on your lap or just so that they rest on your legs. And the other thing is about your back so you're back needs to be upright. Okay now, noticing that there is a part of your feet in concert with the floor. I would like you to simply feel where that is. And then just for a few moments were going to try what it is like with our eyes closed. Have a little look round to see what it looks like having other people around. Notice that everyone looks at each other. Okay alright. Okay and then close your eyes. And breathe. Yes. And breathe. And notice how your breathing. And as you start to concentrate on your feet, notice how they feel in your shoes. That's it. Feeling your feet in your shoes on the ground. And just relax, as best you can. And notice your body sitting in the chair. Your back. You might want to tuck your chin under slightly. Okay. Just a few more moments. As best you can. Relaxing as best you can. And I take your awareness, you're focused your breathing just notice your breath. As you breathe in through nose and down into your lungs. And out again. And staying still as best as you can. And they're noticing your thoughts. Being aware of them. As best as you can and feeling separate from them, just watching them, watching your thoughts come and go. Okay. And staying still as best as you can. And now taking your awareness to
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		<p>the sounds around you, those inside the room and those outside the room. Staying still as best as you can. And then coming back to just being aware of yourself, sitting in the chair. Just noticing how you feel right now just noticing how you feel. And then when you're ready, just open your eyes. Okay. That was really well done. Because it was your first time doing it in a group." I explain that if they were going to do with them to try is it was like focusing our attention I explained that we are now can work on being more aware of our body and how they feel.</p> <ul style="list-style-type: none"> • Moving mindfulness - the first is to move the chairs back. And then I instruct them to take off their shoes. They're a bit shocked by this. Eric says I've got smelly socks. Someone asks if they could take of their socks as well. So explain that they have a choice. I explained that the whole point is to develop the awareness of what's happening inside bodies as we move. "Starting by feeling our feet on the ground. I need to know your name is a bit more." I go through their names again one by one and also introduce myself again. Barbara asks how I spot my name. So I write it up. "Right so just feel your feet on the ground. And feel your hands by your side. Imagine you can feel not only just the air outside your hands but also the bones of those they downed the muscles. Imagine you can feel knowledge is the muscles, but the skin and the clothes and sensations on the close. Down and to the bones. And then be aware of your head and your face and chest and your breathing. And your legs. Just be aware of that. And you might also notice something else as well. So thoughts in your mind. As with in a move, would reduce the moving now. And as you do the moving, try to keep your attention on your movement. Okay. So when you feel your body moving. Just stand will offer a moment. And feel breathing in your chest. And feel breathing in your lungs for. What do you notice in your nose?" Eric says "air". And the others giggle a little and I ask if they notice any difference in the air between breathing in and breathing out. Eric tries another answer but I don't think he quite understood what I was asking for. The others are giggling, perhaps have excited and nervously because there are unsure what to expect probably. Eric says that he's notices that he's been holding his breath. "Stay where you are and we're going to try coming up on our toes and coming back down. How does that feel. Just feel ankles on your feet. And breathe in stretching up. And breathing out and coming down. And breathing in coming up. Can we balance on our toes? That's it. And coming down. And breathing in. And we are going to do bending forwards. How does that feel. So you can bend your knees." Eric starts saying that he was in a comfy bed last night to he isn't able to bend his neck. The others are giggling. It sounds like finding the postures a bit unusual and possibly a bit challenging. They giggle a little bit. And Adam says you can bend your knees you know. I say that I can hear them talking, but they are simply experiencing this in different ways. "And if we can come down to a seated position, without falling over. You might want to bend your knees. And then coming back up again. You can see what it feels like when you bend slightly to one side." Calvin says that it's like stretching one side of the body. Someone said that it feels is uncomfortable. Another person says yes it does a little bit. Adam says that he can feel it on the side of his body. Dudley says we're doing yoga. "We start to notice some sensations. Let's do the first side again. Okay and come back up and then the other side again." I also ask them what it is like standing on one leg. Dudley says that he finds it difficult, losing his balance. Can you feel that fought, before that's on the floor, whatever doing? They start laughing. Eric says yes to keep it forwards or backwards. I asked them to think about what they have to do to adjust themselves to help themselves balance. I say
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		<p>that if it helps, they could look at something on the carpet. I 3rd the doing really well. We go back to the first foot. And I say that this time let's make circles with one of our legs, really gently. Great, I say that's really good balancing. I also add that part of balancing is also concentrating. Eric says that he's week. I encouraged him to look at the floor.. Good. I invite them to do one more breath in. Then I get them to do a forward bend. And I encouraged them to feel the sensations in their back. I asked them if there are any changes. I invite them to come down to a kneeling position, being aware of their feet on the floor. I say that we going to do something called the cat. Where we need to breathe in and out. They are some of puffing and panting a little bit now, as if they are struggling with the controlling the breath. I asked them where they are putting their attention as they do this. And Adam says that they are putting their attention on the breathing. I also encourage them to think back at the breathing feels in their bodies. Eric says that he has a bad neck. Adam says that it feels hard in his throat. Barbara so that it hurts her back a bit. I encouraged them to do it gently, with gentle kind attention. They are doing the cat stretch, and I invite them to do it gently and kindly to themselves. I asked if that is better and Barbara says yes. I get them to sit and asked them how they find that. They say it can be a bit uncomfortable on their feet., the kneeling. So I try a different sitting position with them, sitting cross-legged. Barbara says it feels a little bit better. And then I encouraged them to stretch their hands forward a little bit and I explained that if it gets too much that they need to simply stop Dudley says that his backers of it now. I invite them to find somewhere where they feel is as comfortable., if they can. And then I asked them to find somewhere that feels comfortable. Eric said that his arms feel comfortable. I invite them to close their eyes if they feel happy with that. And I invite them to take a few deep breaths. And then I praise them again. And then we look at twisting, from one side to the next. And I asked them to notice what that does to their breathing., as we go from one side and then to the other side. I praise them again, saying that they are doing very well, inviting them to simply notice what they notice. I explain that they simply noticing that they can about their body. We do a couple more stretches of each side. I invite them to stretch their legs out and emphasise about the little stretches and the gentleness of this forward bend. Dudley says that simply hurts and hurts, so encouraging to be really spared the slow and gentle with himself. I invite them to try with being silence and feel their breathing. I invite them to pitch in numbers and to experience how that feels. I asked them to see if they notice how that affects the back of their neck. I praise them again. I get them to stretch upwards and invite them to reflect on how it feels. Someone says that it feels very comfortable. I get them to notice when there's just the slightest stretch to simply stop and you breathe. Get them to save where they feel the slightest stretch verse. Eric says Hal you touch your toes?. I say well done to them and great. The next thing is the body scan.</p> <ul style="list-style-type: none"> • Body scan (28:57 to 32:33)- I explained that it is about helping them know about their feelings and noticing the sensations in their body. I remind them about kindness feelings and asked them how they might feel in their body. The example is if you're feeling happy, how might that feeling your body they would you feel it? Calvin said he would feel it in his heart. Dudley said he would feel overloaded. Adam says that when you're excited it sometimes doesn't make you feel happy, that it can feel very comfortable. I say that maybe this is like being too excited. I remind I asked them so you notice something in their body. I asked if they could think of a different feeling and how that might feel in
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		<p>their body size it and what if you're feeling angry what do you notice someone says sad. Eric says that he feels in his muscles. I ask him if he feels in any particular muscles. Shoulders or arms? He says that he feels in his arms. And I said what is it feel like in our bodies when we feel calm. And Adam said car more relaxing. Eric says it is like when I go to my happy place. The next thing we go do now is the bodyscan I explained that we need to start by lying down. I organise them is that they are lying down. They giggle but generally corporative. I asked them to find a position where they can lie straight with their hands by their sides and to close they arise. I invite them to let go of any fidgeting that they want to do and to be still as best as they can. And to close they arise. I explained that it's not about sleeping. I remind them about the silence rule. Because they are giggling. I invite them to firstly take their awareness to the soles of their feet, without moving their feet as best as they can. And then to be aware of their ankles and their calf muscles and then knees and closing their eyes, if they haven't done so already. I imagine that some of them have been reopening they arise. Eric ask someone to stop snoring and that it's annoying. I encouraged them to start to focus on their breathing. And to notice their hands on their arms. And their shoulders. And to take their mind, to take their awareness to these parts of their body, feeling the stillness and their body as best as they can. Dudley complains that someone is snoring. I remind them to continue feeling the stillness and to allow their awareness of their breath, noticing the rise and fall of their breath. And to be aware of sounds around them. There are the sounds of children play in the playground outside. And the them to be aware of their breathing. And to bring their hands gently onto their tummies. And then to slowly roll over onto their sides. And then to slowly, to sitting upright. I praise them for their practice.</p> <ul style="list-style-type: none"> • Feedback - after the bodyscan, I encouraged them to sit upright, although they all seemed to be enjoying the lying down. And so it takes a bit of encouragement to encourage them to sit upright again. Someone said that there was something happening under the ground. Dudley complained about someone is snoring. Eric starts talking about the sounds that he heard. Adam says that he fell asleep because he was so comfortable. I explained that the last they willing to do since we do the sitting at the beginning, that we are going to move onto drawing one experiences were • Draw and write - some of them up to put their shoes back on I explained that they going to draw or write about their experiences. They talk about the colours they ask where they are from. I say that they are from a shop up the high Street. I make sure they all have a blank piece of paper-that they can decide whether they want pens all felt tips. They have 5 minutes there are sounds of them talking but it's not clear what they're saying, simply comments about the pens and the colours. There are sounds of rustling paper. I invite them to work in silence as best as they can. I remind them that the task is about drawing about their experiences of practising mindfulness, what it was like focusing their minds as best as they could with gentle kindly attention. I repeat the instructions again gently there is the sound of scribbling. I say that they can do words as well as drawing. I explain that I am going to be going round and offering them a folder to put this in. Dudley asks if they need to write their names on it. Dudley says that there is paper in his. I show them that there are some stickers Eric says awesome. Adam asks what the time is. Eric says that it is play time. I'm struck them to write their name on the front on the sticker on the top. I asked what time they play time is usually and they say that it is 10:15. I explained that next time we'll start at 9:15 to finish a group past 10 someone
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		<p>asked what time it is than I explained that it's 10:30 and I explained that there is another 15 minutes stop I invite them to focus and to try to work in silence. I can hear Calvin singing quietly briefly. A few minutes pass. I can hear myself talking quietly to someone, encouraging them to write about what their experiences were like, doing this. I remind them to remember to put their names on the sheets of paper and today's date as well, March 1. Eric says that he has finished. I ask someone what they picture is about. A few minutes later, Eric says that he's drawing the seaside. I remind them that as best as they can to draw by what it was like to keep focusing, focusing their minds on what they were doing as best as they could. I say that I'm just checking that they've got their name of the piece of paper will stop Dudley asks if going to put these in our folders. I remind them to put today's date and also any words if that would help them to describe what it was like for them. The 2nd thing, I say that I would like them to do, if they have finished their drawing, to notice that there is a strip of stickers and then on one's sticker, they need to draw something about mindfulness that will help them remember what mindfulness is about, so that when they see it it will help them remember to practice their breathing for example, all being aware of their body or being aware of sounds. Someone asked if they will get to keep the folders. And I say that maybe at the plastic sheets since they are not mine to give. Calvin says that he doesn't know what to write on his sticker. Dudley get excited because Adam has to stickers. So I said that he can simply put them on the side. Eric said that he also got to explain that enough to only use one. I seem to be talking to someone in the distance. Eric suddenly says "I'm doing meditating". I Barbara starts calling me., and she asks what do I have to write on the stickers. I guess is this and Stickers that they have one each. Fiona also asks what do they have to do. I ask Dudley what kind of sticker helps him. I ask if you want to take one back to the classroom. Adam says he doesn't know how to draw I explained that they could keep the stickers and simply draw something on the stickers. I explained that the sticker is like a little reminder of something that they want to focus their mind on. I explained that we've done focusing on their body on their breathing. I asked them what kind of things that they want to keep focusing on. Calvin says mindfulness? And Eric says meditation? So I explained that something to help them remember to practice before Friday. I explained any to do something to help with their breathing, Eric said that he was going to put it in his tray stop Dudley says he will put it on his folder. Eric said he would be good on this folder. But I explained that he needs to leave the folder here that take the sticker with him I say that they would get the folders at the end. Dudley puts the sticker on his T-shirt. Then, to end, they put their picture into their folder. They asked me where I got the pencils from and I explained that the packets were one pound for 2. They are quite impressed with this. I help them with packing up and getting themselves sorted out and bringing this session to a close. Dudley is singing. Then he asks about the price of the folders.</p> <ul style="list-style-type: none"> • Ending - finally get them to put things away and that we make a circle, there seems to be some reticence about bringing this to a close, on their part. I am aware that time is passing and I need to get this tied up. It takes a while for them to get their chairs together for the final part. At the end, we sit in a circle. I asked them to say one thing about what their experiences were like. Eric whispers happy. I repeat the instructions. Dudley says something like 10.10. Ask if anyone has any questions. Dudley asks if going to do the same thing again and again and again. I asked them to think about what it was like to them. Barbara said it was good and fantastic. Dudley says 10 out of 10. Barbara
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		<p>says that she likes the relaxing part. Dudley says 10 out of 10. Fiona simply says same as her. I asked them which bit they liked the best and Fiona said that she liked it when they lay down. Adam is a bit unsure about what to say. And there is a long pause while we wait to him to say something. He said that it was actually kind of different and that he wasn't sure how it was different. Eric said that it was awesome. And then he said it was fun. Dudley then says it was 100 of 100. And that he really liked the lying down practice, except the snoring. Adam said that it had been him who was snoring. I explained that the following session, there session will be at 2pm, after assembly, they will have their next mindfulness session Dudley is happy because then it will only be half an hour till home time. We go over the rules and I give them some feedback on it, including that they were generally settling into the rules, and were basically good at it because it was their first time that they were areas, including being silent that they would be working on. I asked if there were any questions and there weren't any except Dudley asking how long the whole session was. They say that they know their way back to the class. Adam asks if he has to come and keep on coming. So explained that they can decide if they want to stop he says he doesn't seem to be sure that it is for him and that's what it kind of is likely him, so he asked if he could miss a session out how a particular Fridays I ask if it's because something is happening on Fridays. He explained that sometimes there's fun stuff in the class and Friday afternoons. I then realised that some of them are in different classes. And that Friday is their golden time session. I say that it's fine as long as he gets a sense of what we're doing and that I could interview him at the end and that's all great. I thank him for being honest with me. And that brings the session to close. At the tape ends at 59:59.</p> <p>Actions: Later I learned that the one who was missing had forged a permission slip and then as a result the parents refused to let her join in the course. Perhaps at the beginning it would have been useful to have a summary of what was covered in introduction session up on the board, including simple details of the course, time and date, duration, frequency etc.</p>
	1/3/10	<p>Session 2 – reflections after first group session</p> <ul style="list-style-type: none"> • This one is before second session 5th March 1:45pm – two children are missing, then Barbara and Eric will be coming back at 2pm. There's an assembly that they were keen to see – except Calvin wasn't bothered either way – but Fiona Adam and Dudley were interested in seeing it, so I said that they could watch it as long as they came back by 2pm. And maybe Barbara and Eric will be back by then, so it was worth waiting. • My first session was done – it was straight forward. • Enjoyment - They seemed to like the movement and lying down • Content - Maybe need a bit more content versus simply focusing on practicing. Maybe more needed to get them to focus on what they notice, on feelings and emotions that may be coming up. The participants - R – was talking about difficult feelings, confused feelings and also S, she seemed down and depressed. So maybe it'd be useful to notice the kinds of thoughts and feelings that we have as we continue to practice this.

		<ul style="list-style-type: none"> • Observation – They had a good sense of their awareness moving through their bodies during the sitting mindfulness. Got giggly during the mindful movement. • It's still experimental - I'll just run it and see how it goes, as best as I can <p>Reflections following summarising this session (31/1/11)</p> <ul style="list-style-type: none"> • It also would have been useful to give an overview of what would be covered week by week. And also the outcomes from each lesson, as these are often covered in primary classrooms these days. It also would have been useful to clarify the school's behaviour policy, understanding the language of rewards and sanctions that the school has, including what is meaningful to the individuals concerned. In this way, a mindfulness course is adjusted to a particular school setting. • I needed to go through these rules more often than I did during the course. In fact, clarifying the rules and adhering to them would have been useful in a more consistent way. • As I asked them what they think mindfulness is about, at this stage to insist that they put their hands up. I think that maybe I need to think about simple can't have more hands-on way of experiencing mindfulness. • As in the Mindfulness in Schools Project, they talked about simply experiencing "Where is your mind?" while moving the awareness around the body. Immediately, they made it experiential. And I imagine that there was much less talking than I did. • With the sitting mindfulness practice, it would have been useful to have a script and to follow that more or less. It also would have been useful to have a timer so that I would be sure of how long to spend on each practice and then to gradually increase this length of time so that they had an incremental practice with this. • It also would have been useful to be structured in the feedback too. Where each person had to think of one word in silence to describe their experiences and perhaps to write them down on a whiteboard and then to share that to the class generally. • Regarding the feedback, it would have been useful to go around with the microphone at the time, capturing some information about their drawings as they were doing it and maybe getting them to comment on them there and then. • It would have been good to give them clearer instructions perhaps even have them written on the piece of paper, having designed the paper is a worksheet.
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Appendix J: The process of IPA analysis

The process of transcription

Each recording covered a conversation between the researcher, myself and the participant. For ease of reading, the contribution of each person was written on a new line. Firstly, the recordings were transcribed in a quick way to give a rough overview of the contents of the recordings. Then, the recordings were listened to again, to add more detail to the transcripts. Any reflections generated while listening to the transcripts were added as comments. These conventions for transcribing were used for all the transcriptions. It was not necessary to provide detailed to the level of timings, such as the exact length of pauses or all non-verbal utterances, because IPA aims to focus upon the meanings of the content of the accounts (Smith et al., 2009).

Convention	Meaning
(.)	Indicates a short pause (0.5 to 5) seconds
::	Colons are used to signal elongation added by the speaker e.g. reca::ll
Italics	Text in italics shows emphasis added by the speaker
:: & italics	Indicates elongation and emphasis added by the speaker
[...]	Indicates text omitted by the author due to bad quality of the recording
[text]	Indicates information added by the author for the purpose of clarity

In order to keep the participants anonymous, they were referred to as Adam, Barbara, Calvin, Dudley, Eric and Fiona. In this way their initials spelt the first six letters of the alphabet, simplifying were made to the transcripts. In order to refer to a particular row in a particular transcript, the following code was developed comprising of:

4. A letter representing the initial of the participant, i.e. A, B, C, D, E or F
5. A number, either 1, for the initial interview or 2, the final interview.
6. A number, representing the comment's row in the spreadsheet

So, for example C2:123, refers to the 123rd row of the transcript of Calvin's final interview and F1:20, refers to the 20th row of Fiona's first interview. All the transcripts were then transferred from being in a word document to a spreadsheet. At this stage, any comments were added to the "exploratory comments" column next to his transcribed conversations, in order to develop them more fully. The transcripts also amended slightly if needed, thereby making them as accurate as possible.

Initial draft of emergent themes

- New concepts
 - Defining mindfulness
 - Spotlight of attention
- Mindfulness experiences - state
 - Breath/ body awareness
 - Spatial awareness
 - Dizziness
 - Sounds awareness– e.g. birdsong, singing
 - Awareness of attention
 - Thoughts awareness
 - Metaphors of meta-cognition
 - Feelings
 - Happiness
 - Positive associations
 - Feelings of relaxation or calm
 - Feelings that were difficult
 - Children's own strategies to help themselves
 - Mindful drawing – being in the present while drawing
 - Extraneous doodles
 - Mindlessness experiences
 - Automaticity - memories
 - Rumination
 - Day dreaming or fantasising – e.g. cookieland
- Views on impact of participation on course
 - Everyday mindfulness
 - Personal practice
 - Support for developing mindfulness – school
 - Home issues
 - Stickers
 - Relationship with others
 - Emotional self-regulation
 - Valuing the practice
 - Teaching it to others
 - Transferring skills to classroom
 - Views on learning mindfulness – before and after
- Interview process
 - Difficulties with self-expression, including saying little
 - Requests for general information about the course
 - Drawings
 - views on them
 - Difficulty remembering from drawings
 - Resources
 - The interview room – issues
 - The recorder issues
- Notes from CAMM – background of participants

Appendix K: Instructions for what to draw in each session

In each session, the children were asked to draw something about their experiences of mindfulness. The wording for each session changed slightly, although the children focused upon how they experienced what their attention focused on during the mindfulness practices. Here, the guidance for the drawings from each session is provided.

The first session (25/2/10 or 26/2/10) was the initial interview session. Most children drew their first picture here.

In the second session (1/3/10), the first group session, the children were asked to draw their experiences, following doing mindfulness sitting, movement and the bodies can practice.

In the third session they drew a sticker of "what helped with concentrating". The sticker was taken home.

In the fourth session (8/3/10), they drew or wrote about their experiences of their attention moving in their bodies, following a body scan practice.

In the sixth session (12/3/10), they drew or wrote about how they might practice mindfulness at home.

The seventh session (19/3/10), focused on drawing writing about the best time that they were concentrating during their mindfulness practice.

In the eighth session (22/3/10), they drew about the kinds of things that were taking or distracting their attention.

The ninth session (26/3/10) involved drawing writing about experiences of drawing their attention back to the present moment as best as they could.

In the 10th session there was no drawing, simply time to practice.

Finally, their last opportunity to speak about or draw their experiences was in their final interview (30/3/10 or 31/3/10). This opportunity followed a review of the CAMM questionnaire,

Appendix L: The collection of drawings from each participant

Adam's Drawings

Session 1 – 26.2.10 - Initial Interview Session – Adam opted not to draw.

Session 2 – 1.3.10 – Draw what your experiences were", following doing mindful sitting, movement and sitting practices – Adam opted not to draw again.

Session 3 – 5.3.10 – Draw a sticker of 'what helps with concentrating'. This sticker was taken home.

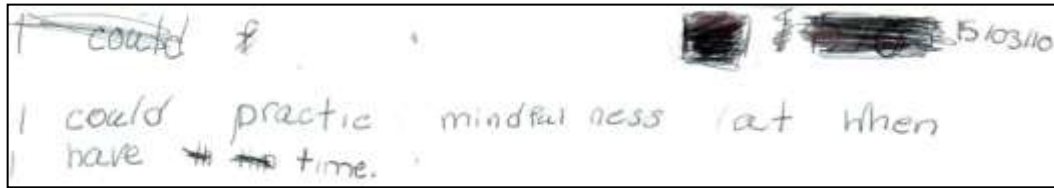
Session 4 – 8.3.10 – "Draw a picture of your experience of being mindful" - In the fourth session (8/3/2010), Adam drew a picture of himself, labelling it with the words "learn to concern on what's happening" and "focusing on my body".



Session 5 – 12.3.10 – Draw or write about "your experience of your attention moving in your body", following a body-scan practice - Adam simply wrote "when I started the bodyscan I felt very relaxed. The mindfulness movement was good to because of the concentrating." He explained that the emotions related to this were that "I felt really kind of happy" (A2:124) and that "I felt calm when I was staying on the spotlight." (A2:126).

When I started the body scan I felt
very relaxed the Mindfulness Movement was good
too because of the concentrating.

Session 6 – 15.3.10 – Draw or write about “how you might practice mindfulness at home” - During the sixth session, when asked to draw about practicing mindfulness at home, he wrote "I could practice mindfulness at when I have time."



Session 7 – 19.3.10 – Draw “yourself either lying down or sitting, during the best time that you were concentrating during your mindfulness practice” **Did not attend**

Session 8 – 22.3.10 - Drawing about “the kinds of things that were taking your attention” **Did not attend**



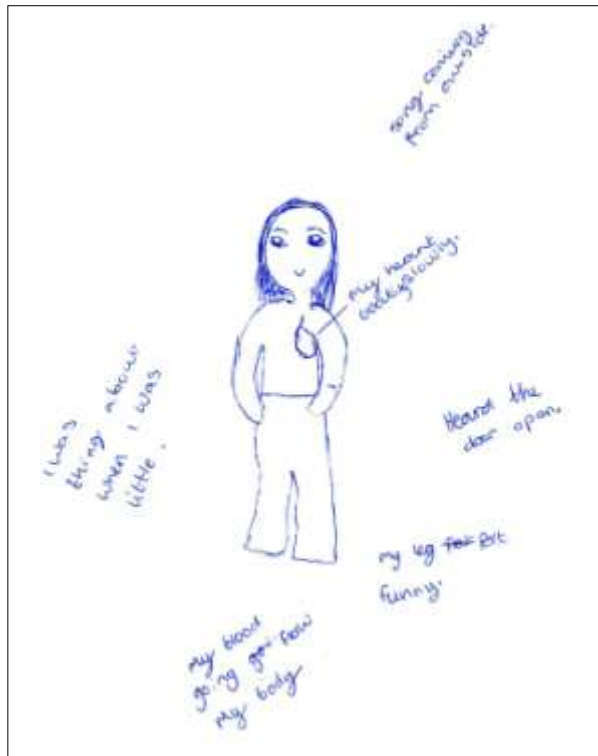
Session 9 – 26.3.10 – Draw “what were experiences of drawing your attention back to the present moment as best you could” - he drew a very faint picture of a tree.

Session 10 – 29.3.10 – No drawing – simply practice time – and hand out stickers on mindfulness

Final Interviews – 30.3.10 - Going over the drawings - In the final interview, he went over his drawing of the tree, adding in a blue river.



Barbara's drawings



Session 1 – 25.2.10 - Initial Interview Session - Barbara's initial drawing was of herself and included details about physical sensations, including labelling her heart as "my heart beating slowly". She also wrote "Heard the door open.", "Song coming from outside", "I was thinking about when I was little" and "My blood going through my body".

Session 2 – 1.3.10 – Draw what your experiences were following doing mindful sitting, movement and sitting practices - In the 2nd session, she drew a picture of herself lying down in the park, on some grass, with some decorative flowers up the sides of the page.

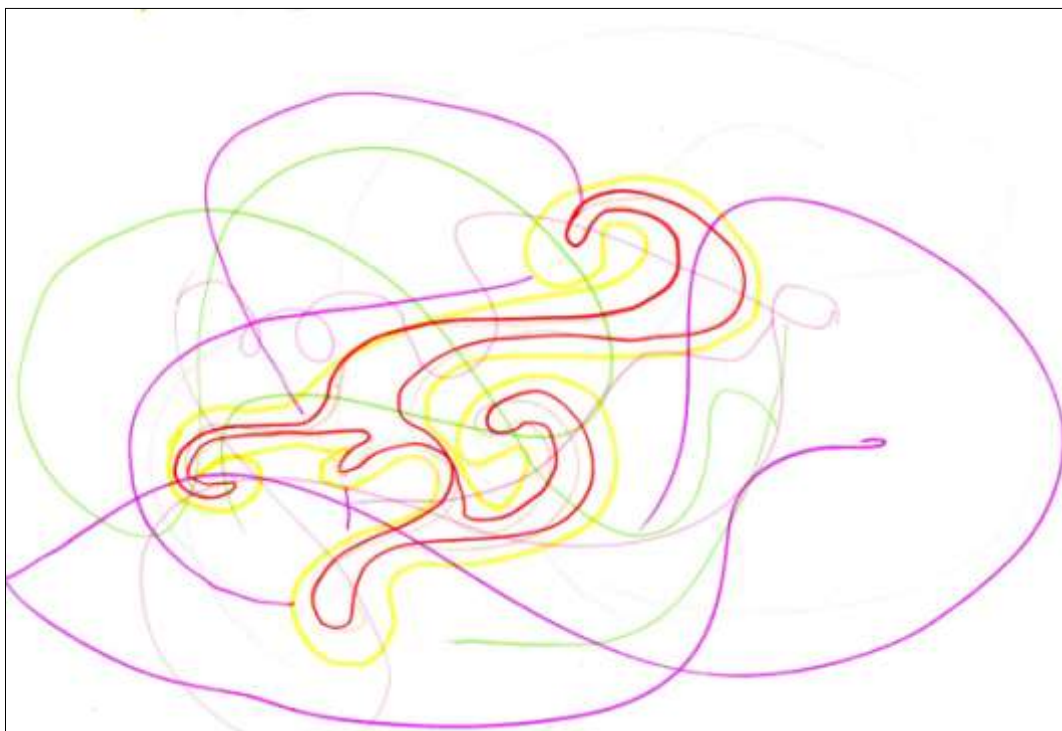


Session 3 – 5.3.10 – Draw a sticker of ‘what helps with concentrating’. This sticker was taken home.

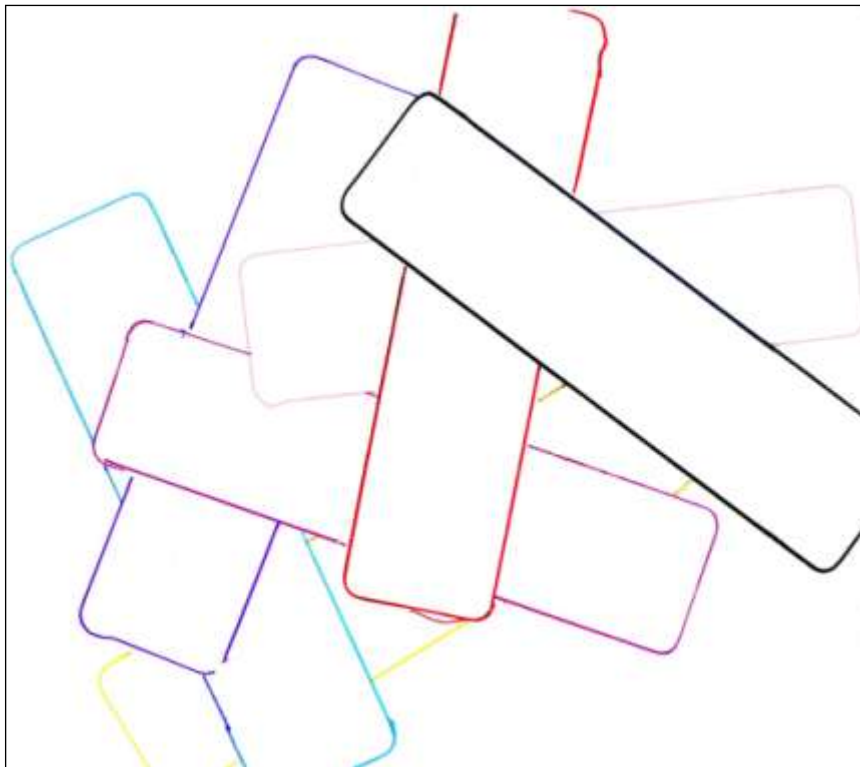
Session 4 – 8.3.10 – “Draw a picture of your experience of being mindful” - In the 4th session, she drew a memory of a beach holiday, explaining that thinking about a calm place helped her to be still and calm (B2:264).



Session 5 – 12.3.10 – Draw or write about “your experience of your attention moving in your body”, following a body-scan practice. - In 5th session she said that she had been "dreaming of colours", and.



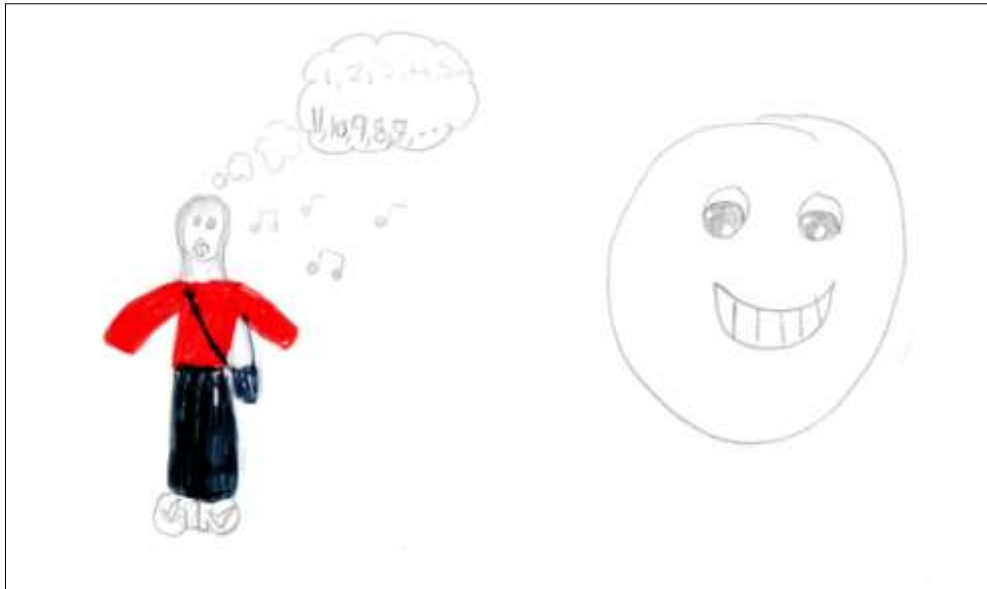
Session 6 – 15.3.10 – Draw or write about “how you might practice mindfulness at home” - she drew colourful "triangles".



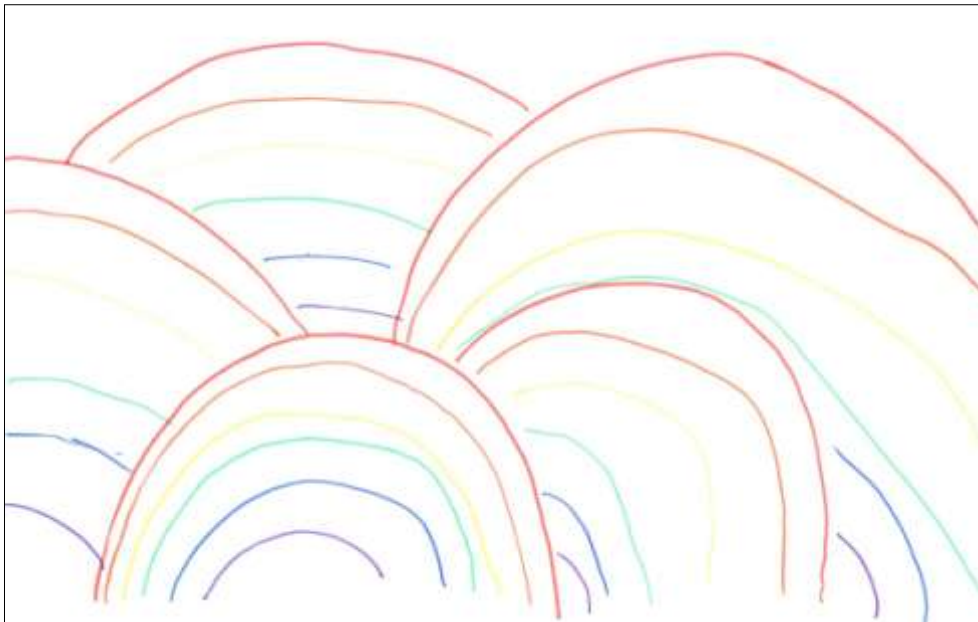
Session 7 – 19.3.10 – Draw “yourself either lying down or sitting, during the best time that you were concentrating during your mindfulness practice” - In the seventh session, she drew a picture of herself lying down, with a drawing of a cat's face next to her.



Session 8 – 22.3.10 - Drawing about “the kinds of things that were taking your attention”



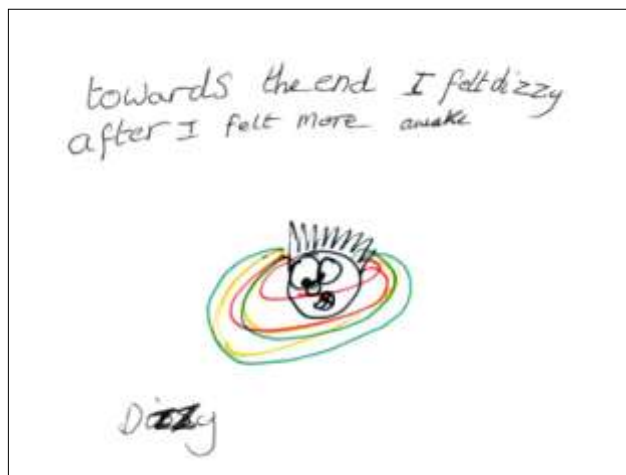
Session 9 – 26.3.10 – Draw “what were experiences of drawing your attention back to the present moment as best you could” – In the ninth session she drew some colourful rainbows



Session 10 – 29.3.10 – No drawing – simply practice time – and hand out stickers on mindfulness – She was absent

Final Interviews – 30.3.10 - Going over the drawings – Did not want to draw, preferring to talk.

Calvin's drawings



Session 1 – 25.2.10 - Initial Interview Session - Calvin's initial drawing was about himself feeling "dizzy", and included a picture of his head, with colours that seemed to spin around it.



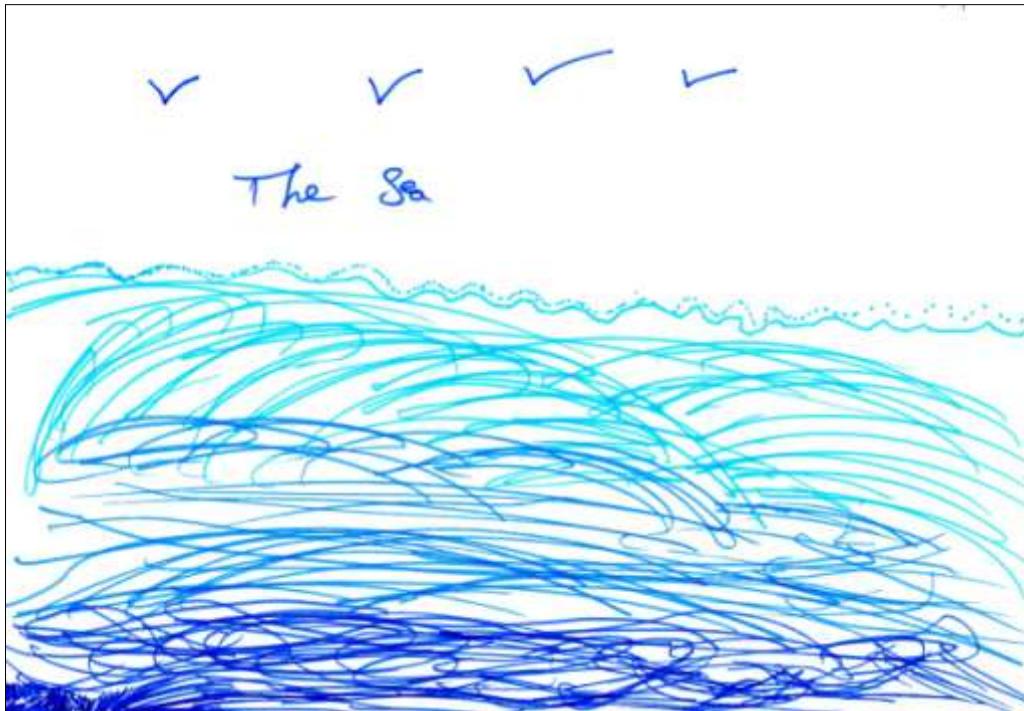
Session 2 – 1.3.10 – The children were asked to "draw what your experiences were", following doing mindful sitting, movement and sitting practices. During the second session, Calvin drew himself "floating" and "spinning" while lying down.

Session 3 – 5.3.10 – Draw a sticker of 'what helps with concentrating'. This sticker was taken home.

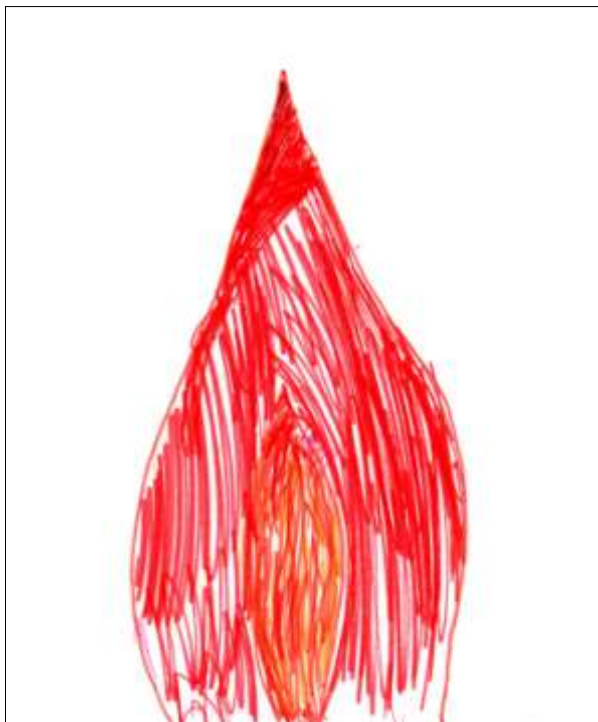


Session 4 – 8.3.10 – "Draw a picture of your experience of being mindful" - This drawing showed him in the centre with colours and shapes swirling around him.

Session 5 – 12.3.10 – Draw or write about “your experience of your attention moving in your body”, following a body-scan practice - In the fifth session he drew a picture of the sea, depicting the movements of his breath.



Session 6 – 15.3.10 – Draw or write about “how you might practice mindfulness at home” - During the sixth session, he drew a picture of a flame, which he used as a metaphor to represent his capacity to control his attention.



Session 7 – 19.3.10 – Draw “yourself either lying down or sitting, during the best time that you were concentrating during your mindfulness practice” - In the seventh session, to represent the best time that he had been concentrating during his mindfulness practice, he drew a picture of himself lying down with the word "peace" above him.



Session 8 – 22.3.10 – Draw “the kinds of things that were taking your attention” - In the eighth session he drew representations of the breeze of the air flowing in through the open window. There was also a small picture of a bell on the right-hand side of this drawing.

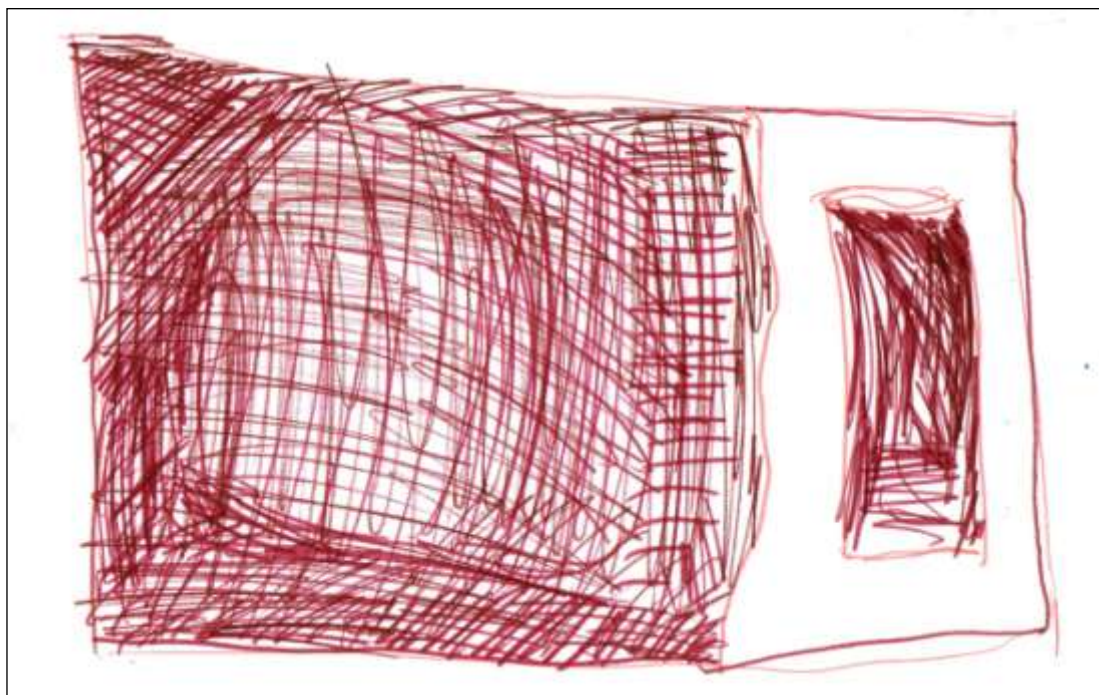


Session 9 –26.3.10 – Draw “what were experiences of drawing your attention back to the present moment as best you could” - In the ninth session he drew a picture of a ghost and his bicycle. He explained that his bicycle had been stolen that week and he was upset about it.



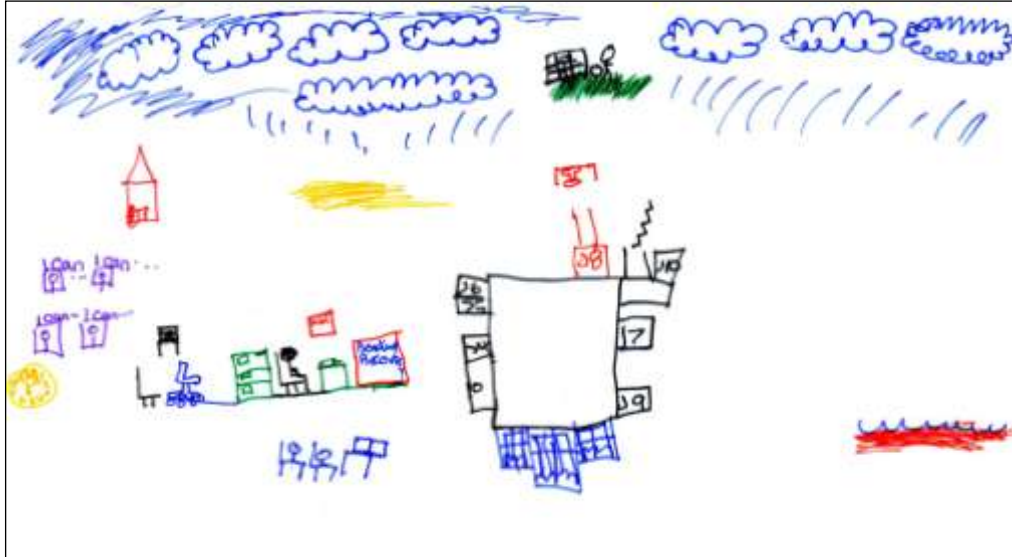
Session 10 – 29.3.10 – No drawing – simply practice time – and hand out stickers on mindfulness

Final Interviews – 30.3.10 - Going over the drawings - In the final interview, he drew a picture of a bed, explaining that he had been feeling extremely tired having not slept well the night before.

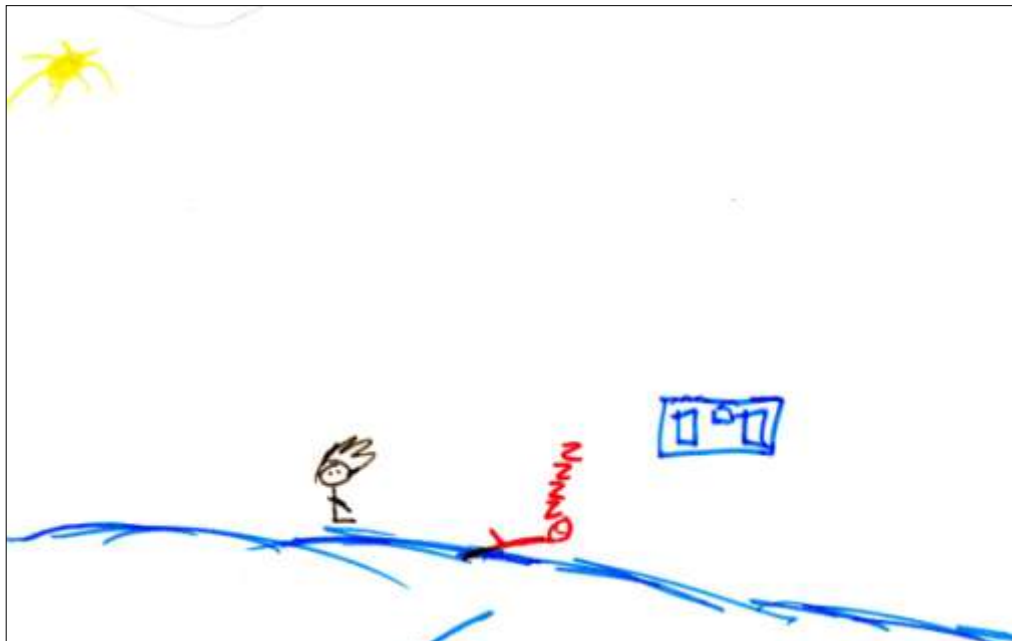


Dudley's Drawings

Session 1 – 25.2.10 - Initial Interview Session - Dudley's initial drawing was a detailed description of numerous events that had been happening around him, of which he had been aware during his first experience of sitting mindfulness.



Session 2 – 1.3.10 – Draw what your experiences were”, following doing mindful sitting, movement and sitting practices. In the second session, he drew a picture of himself lying down doing the body scan and next to him a figure setting up doing is sitting mindfulness practice.

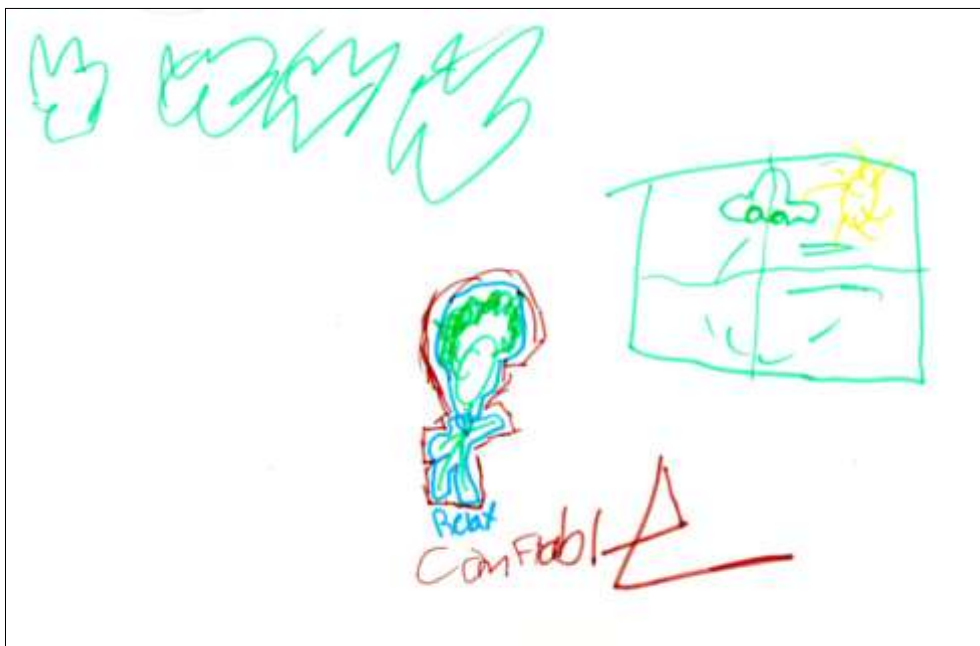


Session 3 – 5.3.10 – Draw a sticker of 'what helps with concentrating'. This sticker was taken home.

Session 4 – 8.3.10 – “Draw a picture of your experience of being mindful” - In the fourth session, he draw a memory of the beach and sea



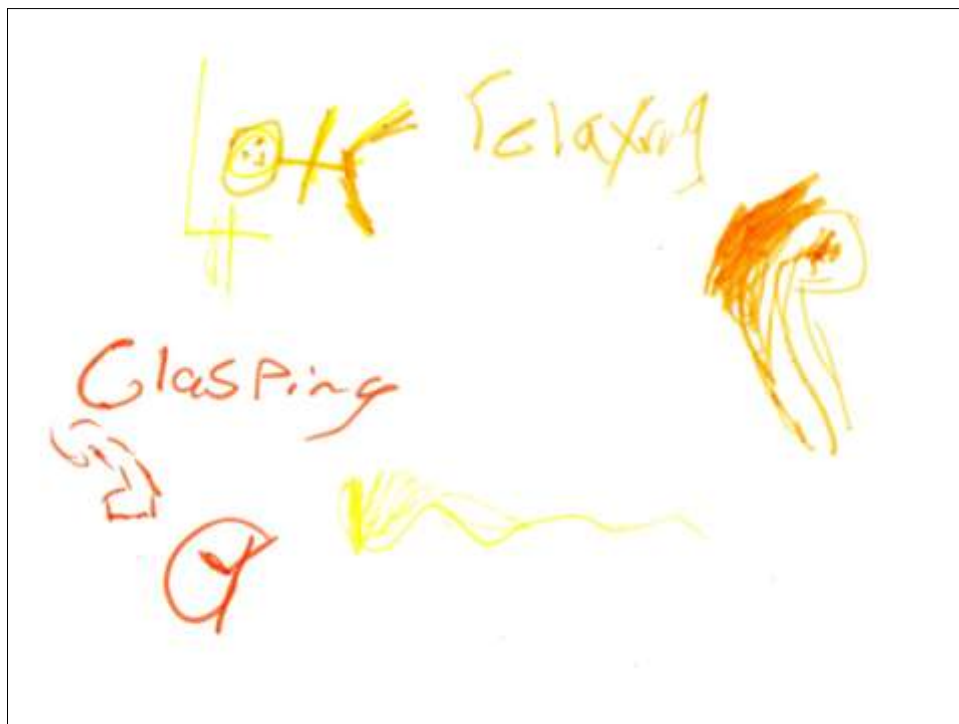
Session 5 – 12.3.10 – Draw or write about “your experience of your attention moving in your body”, following a body-scan practice - In the fifth session, he drew a picture of himself in green surrounded by a blue outline that he described as being the relaxation, and around fact, a brown outline which he described as comfortableness.



Session 6 – 15.3.10 – Draw or write about “how you might practice mindfulness at home” - In the sixth session, drawing how he might practice mindfulness at home, he depicted himself, his mother and his little brother doing "star jumps" together.



Session 7 – 19.3.10 – Draw “yourself either lying down or sitting, during the best time that you were concentrating during your mindfulness practice” - In the seventh session he drew himself lying down and relaxing.



Session 8 – 22.3.10 - Drawing about “the kinds of things that were taking your attention” - In the eighth session when drawing about things that were taking his attention, he drew a picture of himself sitting, with thought bubbles above him showing himself singing, playing basketball and football.



Session 9 – 26.3.10 – Draw “what were experiences of drawing your attention back to the present moment as best you could” - In the ninth session, depicting his experiences of drawing his attention back to the present moment, he drew himself sitting down, next to a picture of a football that had been scribbled over.

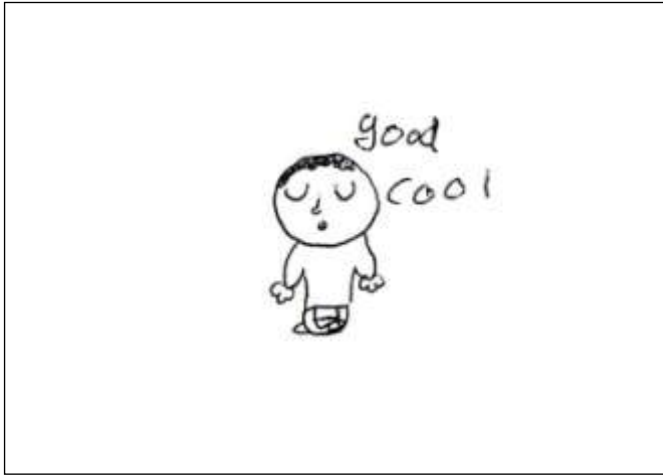


Session 10 – 29.3.10 – No drawing – simply practice time – and hand out stickers on mindfulness

Final Interviews – 30.3.10 - Going over the drawings - In the final interview, he opted not to draw

Eric's Drawings

Session 1 – 25.2.10 - Initial Interview Session - Eric's first drawing, during the initial interview, was about himself sitting still with his eyes closed with words "good" and "cool".



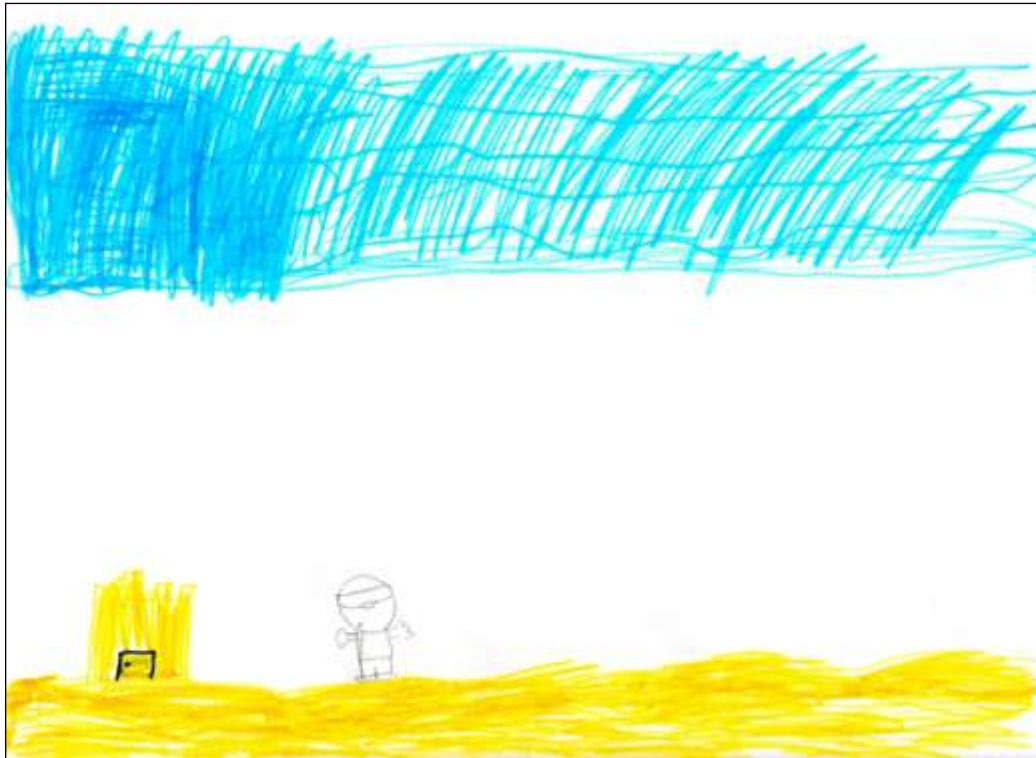
Session 2 – 1.3.10 – Draw what your experiences were”, following doing mindful sitting, movement and sitting practices – Eric was away doing cycling practice

Session 3 – 5.3.10 – Draw a sticker of ‘what helps with concentrating’. This sticker was taken home.

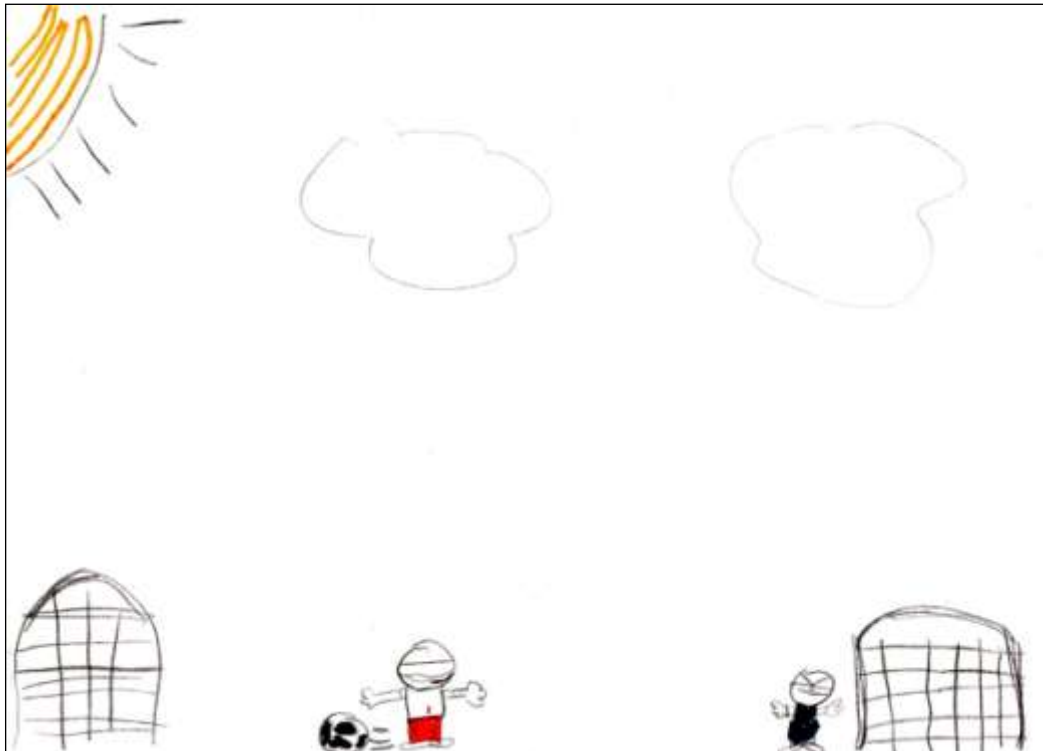
Session 4 – 8.3.10 – “Draw a picture of your experience of being mindful” – He drew a scene in which he was playing with his cat, in his garden



Session 5 – 12.3.10 – Draw or write about “your experience of your attention moving in your body”, following a body-scan practice - He drew a picture of himself at the seaside.



Session 6 – 15.3.10 – Draw or write about “how you might practice mindfulness at home” - He depicted himself playing football.



Session 7 – 19.3.10 – Draw “yourself either lying down or sitting, during the best time that you were concentrating during your mindfulness practice” – He drew himself in the best time that he was concentrating, he drew himself sitting down cross-legged with the words “I am sitting down”.



Session 8 – 22.3.10 - Drawing about “the kinds of things that were taking your attention” - He drew a picture of himself being a bird, with the words “I was thinking about me being an animal”. Later, he explained how this image helped him to retain his focus on his breath



Session 9 –26.3.10 – Draw “what were experiences of drawing your attention back to the present moment as best you could” **He was at cycling practice.**

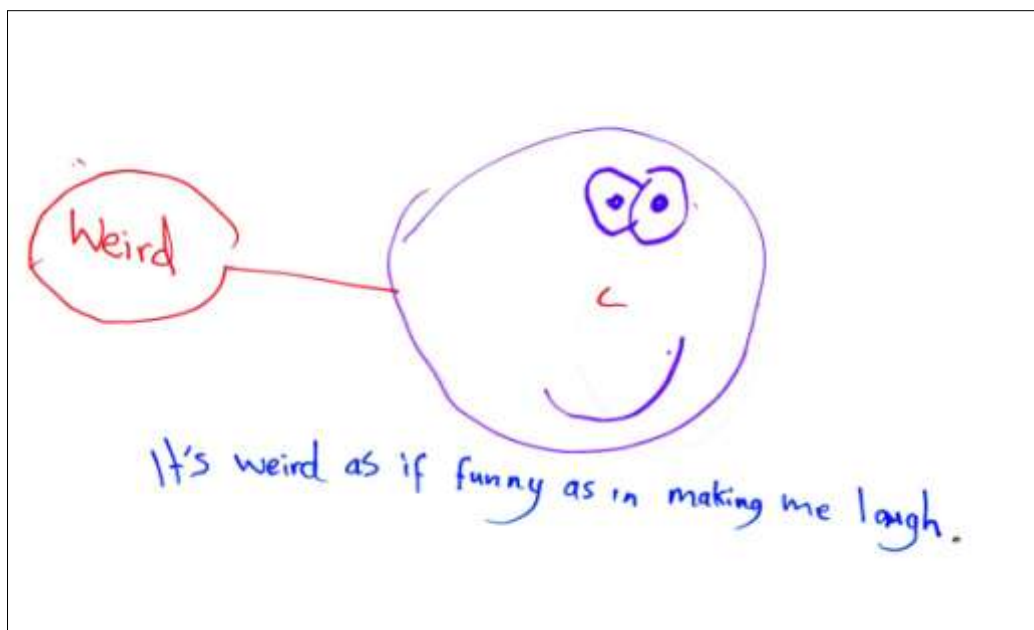
Session 10 – 29.3.10 – No drawing, just practice and stickers on mindfulness

Final Interviews – 30.3.10 - Going over the drawings. He drew a detailed picture of a fantasy world, called "cookie-land", describing it as a place that he often fantasised about when upset.

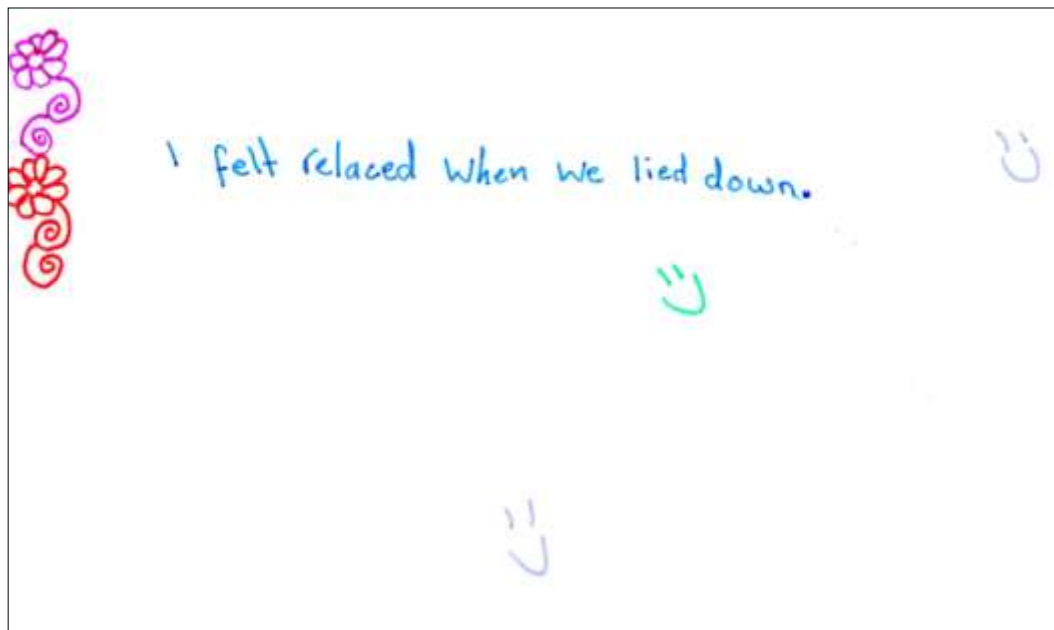


Fiona's Drawings

Session 1 – 25.2.10 - Initial Interview Session - Fiona's initial drawing, done during the first interview session, was of her face smiling and the words "it is weird as if funny as in making me laugh".



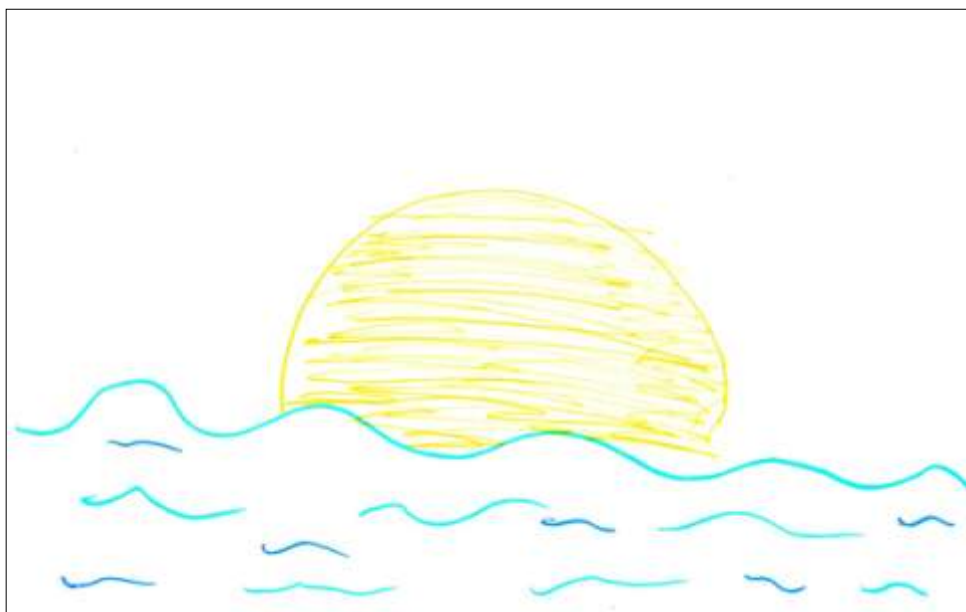
Session 2 – 1.3.10 – Draw what your experiences were”, following doing mindful sitting, movement and sitting practices - She wrote "I felt relaxed when the lights down".



Session 3 – 5.3.10 – Draw a sticker of ‘what helps with concentrating’. This sticker was taken home.

**Session 4 – 8.3.10 – “Draw a picture of your experience of being mindful”
Sasha was away today – possibly ill.**

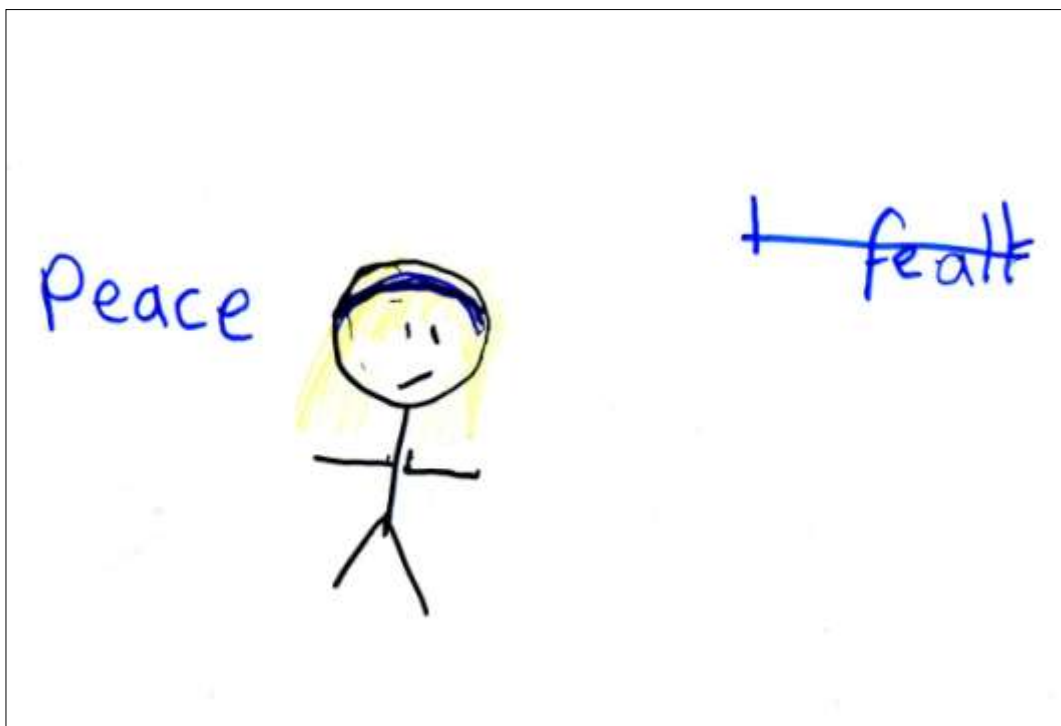
Session 5 – 12.3.10 – Draw or write about “your experience of your attention moving in your body”, following a body-scan practice – She drew a picture of the sun setting over the sea.



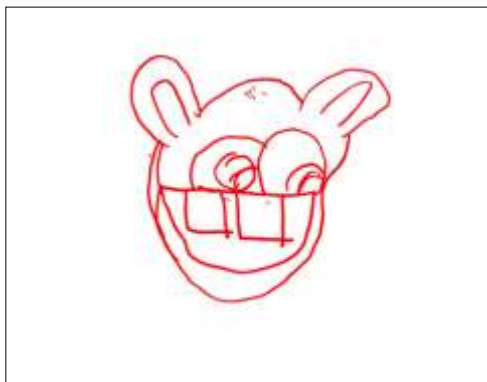
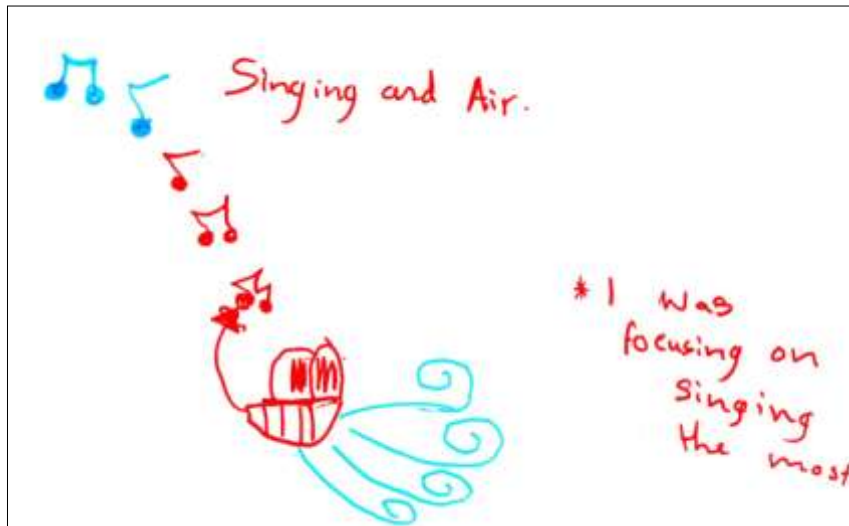
Session 6 – 15.3.10 – Draw or write about “how you might practice mindfulness at home”. She drew a picture of a fireplace that she later explained was not related to her practice.



Session 7 – 19.3.10 – Draw “yourself either lying down or sitting, during the best time that you were concentrating during your mindfulness practice” - She drew a picture of herself with the words "peace".



Session 8 – 22.3.10 - Drawing about “the kinds of things that were taking your attention” - She drew a picture representing "singing and air", with the words "I was focusing on singing the most". On the back was a drawing of a smiling face.



Session 9 – 26.3.10 – Draw “what were experiences of drawing your attention back to the present moment as best you could” - She did a picture of her by the beach, representing a memory of a holiday when she had felt happy



Session 10 –
29.3.10 – No drawing – simply practice time – and hand out stickers on mindfulness

Final Interviews –
30.3.10 - Going over the drawings – Did not want to draw

Appendix M: Summary of the drawings for all participants

Theme 1: Feeling calm, relaxed, happy and confident – 7 drawings – 5 relaxed, 1 calm, 1 happy, 1 weird

Theme 2: Awareness of body sensations/ sounds – 12 drawings – 6 on general body sensations, 3 on dizziness, 1 the breath, 1 on sounds and 1 on overall spatial awareness

Theme 3: Memories and imaginary places – 12 drawings - 8 on memories (including 5 on seaside) and 4 on imaginary places

Theme 4: Awareness of the attention itself – 10 drawings – 4 on observing thoughts, 3 mindful drawing, 3 on strategies

	Adam	Barbara	Calvin	Dudley	Eric	Fiona
1 26/2/10 Initial Interview	<i>Body Drawing</i> A1: 100 to 142 A2:97 to A2:104	<i>Body Awareness</i> B1:74 to 99 B2: 173 to 221	<i>Dizzy head spin</i> C1:121to 150 C2:73 to 80	<i>Spacious awareness</i> D2: 136- 158	<i>Meditating</i> E2: 131-150	<i>Weird making me laugh</i> F2: 107-111
	Body sensations	Body sensations	Body sensations - “dizzy”	Body sensations spatial aware	Body sensations	Feeling - “Weird”
2 1/3/10	Present but did no drawing or writing	<i>Lying in park looking at stars</i> B2:222 to B2:254	<i>Spinning and floating</i> C2:81 to C2:	<i>Bodyscan and sitting practice</i> D2: 158 - 182	Absent (1) - Cycling practice)	<i>Writing: “Relaxed when lying down”</i> F2: 211- 127
		Memory – Positive	Body sensations - “dizzy”	Body sensations		Feeling - relaxed
3 5/3/10	Drew stickers	Drew stickers	Drew stickers	Drew stickers	Drew stickers	Drew stickers
4 8/3/10	<i>Focus on body</i> A2:105- 122	<i>Beach holiday</i> B2:255 to B2:277	<i>Colours spirals</i> 97 to 114	<i>beach and sea</i> D2:183- 200	<i>In garden w cat</i> E2: 151- 182	Absent (1) - Was away ill
	Body sensations	Memory – Beach	Body sensations - “dizzy”	Memory - Beach	Memory – Positive	
5 12/3/10	<i>Writing: Body scan relaxed</i> A2:123- 146	<i>Dreaming of Colours</i> B2:278 to B2:301	<i>The Breath as the Sea</i> C2:115 to 142	<i>Relaxing with Comfortableness</i> D2:201- 224	<i>On the beach</i> E2: 184-210	<i>Sunset</i> F2:127- 150 & 165- 174

	Adam	Barbara	Calvin	Dudley	Eric	Fiona
	Feeling - calmness	Mindful Drawing	Body sensations – the breath	Feeling - relaxed	Memory – Beach	Memory – Beach
6 15/3/10	Writing: Could practice when time	Triangles B2:302 to B2:310	The flame controls attention C2: 143 - 165	Happy family star-jumping D2:225-252	Playing football E2: 210-235	Not sure – Fireplace F2: 151- 165
	Other- home practice	Mindful Drawing	Strategy for attention control	Imaginary place – home practice	Memory – Positive	Other – unsure drawing
7 19/3/10	Absent (1)	Bodyscan with smiling cat B2:310 to B2:349	Bodyscan, “Peace” + doodle C2: 166- 174	Relaxing and claspings D2: 253- 268	Sitting down E2: 236- 238	Self with word “Peace” F2: 175- 196
		Observing thoughts	Feeling - relaxed	Observing thoughts	Body sensations	Feeling - relaxed
8 22/3/10	Absent (2)	Counting breath with smiley face B2:350 to B2:367	The breath as air (with bell) C2: 175- 178	Sitting singing (football) D2: 269- 286	Being a bird E2: 238- 279	Singing and air F2: 197-222
		Strategy for attention control	Sounds	Observing thoughts	Strategy for attention control	Feeling - happiness
9 26/3/10	Green Tree A2:147-177	Rainbows B2:368 to B2:382	Ghost and bike C2: 179 - 194	Sitting (football) D2: 287- 323	Absent (2) – Cycling Practice	On the beach F2: 223-254
	Imaginary place	Mindful Drawing	Memory – Negative	Observing thoughts		Memory – beach
10 29/3/10	Drew stickers	Drew stickers	Drew stickers	Drew stickers	Drew stickers	Drew stickers
Final Interview 30/3/10	River of calm A2:179 to A2:190	No drawing B2:416 to B2:431	Sleepy bed C2: 213 - 225	No drawing D2: 338- 362	Cookieland E2: 301 - end	No drawing F2: 264- end
	Imaginary place		Feeling - relaxed		Imaginary place	
Number	4	8	9	8	7	6
Attendan	8	10	10	10	8	9

Appendix N: The CAMM scores for each participant

* Reverse-scored items are: 2, 4, 5, 7, 8, 10, 11, 15, 16, 17, 18, 19, 20, 21, 25

	CAMM Statement	R *	A 1	A 2	B 1	B 2	C 1	C 2	D 1	D 2	E 1	E 2	F 1	F 2												
1	I notice small changes in my body, like when my breathing slows down or speeds up.		2	2	3	3	3	2	2	2	2	2	2	4	4	4	4	2	2	4	4	0	0	2	2	
2	I get upset with myself for having feelings that don't make sense.	r	0	4	3	1	4	0	0	4	1	3	1	3	0	4	0	4	3	1	1	3	1	3	0	4
3	I pay attention to my muscles and notice when they feel tight or relaxed.		2	2	3	3	4	4	4	4	1	1	2	2	3	3	4	4	0	0	1	1	0	0	0	0
4	At school, I walk from class to class without noticing what I'm doing.	r	0	4	2	2	1	3	2	2	1	3	2	2	0	4	0	4	0	4	0	4	0	4	0	4
5	I do things without thinking about what I'm doing.	r	0	4	2	2	3	1	4	0	2	2	2	2	1	3	1	3	1	3	2	2	1	3	0	4
6	I pay close attention to my thoughts.		2	2	2	2	2	2	4	4	3	3	2	2	4	4	4	4	0	0	2	2	1	1	2	2
7	I try only to think about things that make me feel happy.	r	3	1	3	1	4	0	2	2	2	2	1	3	4	0	4	0	4	0	3	1	0	4	0	4
8	I keep myself busy so I don't notice my thoughts or feelings.	r	3	1	2	2	3	1	0	4	1	3	2	2	2	2	4	0	0	4	0	4	0	4	0	4
9	When I'm doing something, I focus only on what I'm doing and nothing else.		1	1	3	3	3	3	4	4	2	2	1	1	3	3	4	4	3	3	4	4	0	0	2	2
10	I tell myself that I shouldn't feel the way I'm feeling.	r	3	1	3	1	4	0	2	2	2	2	1	3	2	2	4	0	0	4	2	2	1	3	1	3
11	When something good happens, I can't stop thinking about it.	r	4	0	4	0	4	0	4	0	2	2	3	1	3	1	4	0	3	1	4	0	4	0	3	1
12	When I take a shower or bath, I notice how the water feels on my body.		4	4	4	4	4	4	2	2	3	3	1	1	4	4	4	4	4	4	4	4	1	1	1	1

	CAMM Statement	R *	A 1	A 2	B 1	B 2	C 1	C 2	D 1	D 2	E 1	E 2	F 1	F 2												
13	I notice my thoughts as they come and go.		3	3	2	2	3	3	0	0	2	2	2	3	3	4	4	0	0	1	1	2	2	3	3	
14	When I'm eating, I notice the way it feels to chew my food.		4	4	1	1	3	3	2	2	1	1	1	1	4	4	4	4	2	2	3	3	4	4	4	
15	I push away thoughts that I don't like.	r	4	0	3	1	3	1	4	0	2	2	1	3	4	0	4	0	1	3	2	2	1	3	0	4
16	It's hard for me to pay attention to only one thing at a time.	r	3	1	1	2	4	0	4	0	3	1	3	1	3	1	4	0	0	4	4	0	2	2	2	2
17	I think about things that have happened in the past instead of thinking about things that are happening right now.	r	2	2	2	2	3	1	4	0	3	1	3	1	2	2	4	0	0	4	4	0	0	4	0	4
18	I get upset with myself for having certain thoughts.	r	3	1	2	2	3	1	0	4	0	4	1	3	0	4	0	4	0	4	0	4	0	4	2	2
19	I do many things at once.	r	3	1	2	2	1	3	1	3	1	3	2	2	2	2	2	0	4	0	4	1	3	1	3	
20	I think about the future.	r	1	3	2	2	4	0	4	0	3	1	3	1	2	2	4	0	1	3	4	0	0	4	0	4
21	I think that some of my feelings are bad and that I shouldn't have them.	r	3	1	3	1	3	1	4	0	1	3	1	3	4	0	4	0	2	2	4	0	3	1	0	4
22	I notice when my feelings begin to change.		1	1	1	1	3	3	4	4	2	2	2	2	2	2	4	0	1	3	0	4	0	4	2	2
23	I pay close attention to whatever is happening right now.		1	1	2	2	4	4	4	4	2	2	2	2	4	4	4	4	4	4	2	2	2	2	4	4
24	I notice how things around me smell.		3	3	1	1	2	2	3	3	2	2	2	2	4	4	4	4	0	0	1	1	1	1	1	1
25	I stop myself from having feelings that I don't like.	r	3	1	3	1	3	1	3	1	0	4	1	3	4	0	4	0	3	1	1	3	0	4	3	1
	Overall mindfulness		9		9		6		9		5		6		9		1 0		3		6		1 0		1 0	
	Total score for each participant:			4 8		4 4		4 4		5 1		5 6		5 0		6 2		5 3		6 0		5 5		6 1		6 9
	Change in mindfulness =			- 4				7				- 6				- 9				- 5					8	

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